THE LANCET.

VOL. II.] LONDON, SATURDAY, MARCH 28, 1840. [1839-40.

COURSE OF LECTURES
ON THE
PHYSIOLOGY AND PATHOLOGY OF THE BLOOD,
AND
THE OTHER ANIMAL FLUIDS,

DELIVERED IN THE SESSION OF 1839-40,
AT THE
School of Anatomy adjoining St. George's Hospital.

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LECTURE XIII.

Secretion of urine, continued.—Morbid alteration of its constituents: water; animal principles. Salts: sulphates; phosphates; chlorides. Alkaline urine; fatty matter; mucus. Foreign principles in it; milk, sugar, pus, spermatic fluid; animal acids; oxalic acid; carbonic acid and carbonates; bile; blood, its corpuscles; fibrin. Albuminous urine, its varieties. Alimentary substances. Medicines. Table of urinary microscopic objects.

GENTLEMEN:—It has been well observed by M. Piorry, the successor of M. Broussais, that empirical practitioners adapt their treatment to the names of diseases, while the true physician founds his on the most perfect knowledge attainable of the animal economy. If you reflect upon the function which the kidney performs, of depurating the blood, and reason upon the facts brought into view in the last lecture, you will acknowledge the justness of this remark. When, in an affection of the kidney, we can see nothing beyond the organ; when we overlook the injurious effects which result to the blood, and through the blood to distant parts, we must inevitably mistake the nature and tendency of innumerable symptoms which arise; and if we content ourselves with treating such a disease by its name, according to principles and plans laid down in systematic works, and sometimes delivered authoritatively in lectures, remedies calculated to avert the general mischief will be lightly regarded, and others believed to have a specific influence over the organ will be rashly insisted upon. "To pay too much attention to names is to incur the risk of bad treatment." Whether a morbid state of the urine indicates a disease of the kidneys, or coincides, as frequently happens, with a perfectly sound state of those organs, a morbid state of the blood, primary or secondary, as regards the kidneys, will take place, and this remark may be extended to every organ and tissue in which the blood undergoes important modifications. The analysis of urine is before you, and we have now to proceed with the remaining proximate principles of that complex fluid.

Water.—The usual proportion of water is about 930 parts in 1000, but its variability is very great, and confined within certain limits; this is compatible with health, but beyond these it sometimes constitutes disease. The proportion of water may be guessed at by the colour of urine, and, estimated more correctly, by its specific gravity; but to determine it accurately a given quantity should be evaporated in a salt-water bath, and the weight of the solids which remain subtracted from that of the quantity employed, when the remainder will indicate the proportion of water lost. Sometimes the quantity of solid ingredients contained in the urine is less than that of the fluids drunk; M. Rayer found this to be the case, when it was perfectly clear and transparent, in a patient who had taken, half an hour previously, a large quantity from a saline spring; but the quantity of water which passes off by the kidneys from the blood after drinking must depend in a great measure upon the state of the skin. Heberden and Rayer believe that the urine becomes habitually more watery as age advances and health declines. In nervous affections the quantity of solid matter is sometimes so small that the density is little above that of common water; in dropsy from diseased liver, on the contrary, the proportion is extremely small, and when the urine is very abundant, and almost wholly composed of water, with very little animal matter, dis-

betes insipidus is present; but in this case we must not be led astray by a name; the state of the urine here referred to is totally different from that which occurs in *diabetes mellitus;* it indicates a totally different state of the blood and of general disease.

Lactic Acid; Aqueous and Alcoholic Extracts.—According to Berzelius these substances constitute 17.14 parts in 1000 of urine. Although the suspicion which formerly existed, that the lactic acid is nothing more than the acetic, may have been removed, it still remains extremely doubtful whether it is not a product of the complicated analysis by which it is procured. The most distinct form in which it is obtained is in the shape of a very acid, colourless, inodorous, deliquescent syrup, and its salts are of a gummy and uncrystallisable nature. This acid is not peculiar to urine, but has been obtained by Berzelius, who believes it to exist in the blood, from nearly all the animal fluids. Although it is regarded as the cause of the acid reaction of healthy urine, and as the principal solvent of the earthy phosphates, which are insoluble in water, we are not at present in possession of any facts relative to its modifications in diseases. This is nearly the case with respect to the osmazome, which is also regarded as a constituent of many of the animal solids and fluids, and as regards the whole of this group, their doubtful existence in the blood, and indefinite nature, render the little knowledge we have of them, in a chemical point of view, totally unavailable in medicine.

Salts of the Urine.—With the exception of the hydrochlorate of ammonia these may all be procured for examination by incineration. The processes adopted for detecting the particular salts are analagous to those employed in the analysis of serum. (LANCET, vol. i. p. 309.) Those which are soluble in water are first separated from those which are insoluble, and the reagents may be employed as described in TABLE V. For the full particulars I must refer you to the work of Dr. Rees, formerly alluded to, and proceed to mention some particulars respecting the salts of the urine, connected with the blood and the general constitution.

Sulphate of Potassa and Sulphate of Soda.—Sulphuric acid does not exist in an isolated state in the blood or urine, but its presence, as a constituent of these salts in the latter, may be determined by the action of nitrate of barytes, which produces a precipitate insoluble in nitric acid. The quantity of these sulphates in the whole mass of blood does not much exceed four drachms (TABLE IX.); and if all the urine evacuated be composed as in TABLE XX., as much as three drachms are excreted daily. We may infer from this, that either a greater quantity of their characteristic element, sulphur, is received into the system habitually than its wants require, or that the interchange of the molecules of this element is extremely rapid. Owing to the great solubility of the sulphates they never form part of urinary deposits, and we have no knowledge of the variations to which they are subject, either in the blood or urine. The only case I am aware of is one recorded by Dr. Prout, in which he considered it probable that free sulphuric acid precipitated lithic acid. The patient was a corpulent man, subject to eructations, which he compared to *bilge* water, most likely containing hydro-sulphuric acid.

Urinary Phosphates.—The phosphates are obtained from the blood in very small quantity, and in healthy urine phosphorus is found only as phosphoric acid, principally in combination with ammonia and soda, and, in small quantity only, with lime and magnesia. Phosphoric acid, free or combined, may be detected with nitrate of barytes; a precipitate is found soluble in nitric acid, from which it can again be thrown down by ammonia.

Phosphate of Lime.—This earth is manifestly of the utmost importance in the animal economy, as an element of its most solid structure; yet, according to the analysis of M. Denis, the whole mass of blood does not contain at one time more than two scruples of it, and a part of the complicated function of the kidneys seems to be the prevention of any undue accumulation in the blood. It is insoluble in water, and accordingly held in solution only by the acidity of healthy urine. When from any cause this and the other earthy phosphates are separated by the kidneys in great abundance, they form a white deposit, and when the urine becomes alkaline, instead of acid, the phosphate of lime is precipitated. Dr. Prout observes, "I am not acquainted with any disease connected with the simple absence of phosphorus and its compounds from the urine, though the existence of such a disease is not improbable, when we consider that health is always accompanied by a due separation of a certain portion of this principle from the economy. On the contrary, cases where this acid and its compounds exist in the urine in excess are not uncommon." There are many diseases of the osseous system necessarily connected with conditions of the blood, in which a loss of balance in the phosphatic salts of the urine occurs; but, unfortunately, they have been very little studied in relation to the blood itself. According to Fourcroy, in old people phosphate of lime is in excess in the urine, the osseous system being then surcharged with that principle, and M. Rayer does not deny this to be frequently the case, but he states, at all events, that it is not

constant. Fourcroy also holds, that the urine of infants contains no phosphate of lime; but sometimes in children an excess of phosphate of lime is met with as a symptom of rickets, a disease in which a defect in the assimilation of bone-earth from the blood occurs; and in *fragility* of the bones, a disease most frequently met with in old people, where the soft part is carried out of the system, the earthy particles remaining in too great a quantity, we might expect some change in the phosphatic salts of the urine. In *mollities ossium*, although a rare, yet, unfirmly, a fatal disease, there is every reason to believe that some disease of the blood exists, by which not only a failure to deposit the earthy salts occurs, but those already forming a part of the system are reabsorbed into, or dissolved by, the blood, and carried out of the system. Pathologists complain that we are totally ignorant of the causes of these affections, and of any successful methods of treating them; assuredly we must remain so until a more rigid investigation has been instituted into the states of the blood and urine, throughout their progress.

Phosphate of Ammonia and Phosphate of Magnesia.—These occur in healthy urine, and are considered to be held in solution by an excess of acid, and if from any cause the magnesia or ammonia is increased in proportion, neutral or bibasic salts are formed, which, being insoluble, or nearly so, form crystalline deposits; or the same circumstance may occur from phosphoric acid not being derived from the blood in sufficient quantity; hence the origin of the ammoniomagnesian and bibasic calculi. Urine, with an excess of phosphates, particularly those of lime and magnesia, has generally at the same time a proportional deficiency of urea and lithate of ammonia, but this kind of urine varies greatly in composition; other salts which are usually met with are missing, or there may be a total absence of urea. The most important circumstance in connection with this part of the subject is, that urine which deposits the phosphates, like that which deposits lithic acid, is connected with states of general disease comprehended under the term *phosphatic diathesis*. That the blood is intimately concerned in these conditions of the system, is evident from their whole history; but, since many extraneous substances derived from within, as well as those introduced from without, are excreted with the urine, and the final purpose of this is to maintain the perfection of the blood, we can but regard the process which leads to calculous disorders, however dreadful these may be in their results, as amongst those salutary provisions in the animal economy by which the blood is preserved in a state of purity, and general disease, for the time, at least, averted. We remedy this state of the blood, or the local expression of it, by the internal administration of mineral acids, the urine is rendered acid, and the deposition of phosphates is arrested; but we have hitherto had no conception of the intervening changes produced by these medicines upon the blood.

Chloride of Sodium and Hydrochlorate of Ammonia.—Hydrochloric acid, free or combined, is detected by means of solution of nitrate of silver, added to the solution of the incinerated ash of urine, forming a precipitate insoluble in nitric acid. This acid exists in a free state in the stomach during digestion, and chloride of sodium is contained both in the blood and urine, according to existing chemical doctrines, as a hydrochlorate of soda. Dr. Prout thinks that an excess of this acid set free in the kidneys is the most frequent of all the causes of lithic acid deposits. According to the estimates before us, the whole mass of blood contains about 1¼ ounces of common salt, of which about 100 grains passes out of the system with the urine daily. The quantity of the chlorides in the urine of dying persons has been found very much diminished, and sometimes totally wanting. I have already remarked, that the failure of the kidneys to perform their functions becomes injurious to the blood, and productive of general disease, not only by the retention of azotised principles, but in consequence of all or any of its numerous constituents, and their elements, not being duly separated. The following, extracted from one of Dr. Wilson's hospital case-books for 1830, will illustrate this point. We have no observations, that I am aware of, respecting the muriate of ammonia in diseases:—

Henry Fox, aged 35, was seized on Nov. 3rd with dyspnœa, having been previously in good health, although occasionally subject to palpitation of the heart, and he had an attack similar to the present 16 years ago. The dyspnœa was followed by ascites, pain in the chest, cough without expectoration, very scanty secretion of generally high-coloured urine (not a pint being passed in six days), headach, pain in the sides, particularly the right, anasarca, pasty complexion, vomiting of bitter green mucous fluid, sometimes sour, bowels flatulent, generally loose, pulse ranging at 52, 68, 88, 72. He was treated on received principles by bleeding, the coagulum of the blood being dark-coloured and heavy, by diuretics, cathartics, and mild mercurials, when the ascites nearly disappeared. After the 19th most of the symptoms returned, there was also constant vomiting, dry, brown tongue, the greatest degree of difficult respiration, delirium followed by stertor and coma, hot skin, blood buffed and cupped, pulse ranging 108, 100, 110, 120, and he died on the 28th of the same month.

An unusual circumstance occurred on the night of the 25th. The urine being in larger quantity than hitherto, there was also profuse perspiration, and a *white powder* was

observed on both temples, which continued to exude till death. On the 28th, Dr. Wilson made the following note:—"The white deposit very abundant on the face in points and circular spots, of saline taste, breathing very laborious, inspirations deep and protracted, violent spasmodic action of muscles, chest, trunk, and arms, eyelids closed, urine reported very abundant, and passed involuntarily in bed."

Post Mortem.—Kidneys small; cortical substance very deficient; mottled in external surface, and soft in texture. In one kidney there were two or three firm white tubercular masses, immediately beneath its capsule, encroaching on the diseased cortical structure. Peculiar conformation of the heart, assuming somewhat of a triangular appearance, rather dilated and flabby. Some effusion of serum within the pericardium, in the cavity of the chest, between the pia mater and surface of the brain, and in the theca vertebralis. Liver gorged with blood, not diseased. Stomach natural. Spleen small.

The white powder, on Dr. Prout's analysis, was composed of common salt, and some compound of which the acid was destructible by heat (not lithic acid), and which existed in unison with a fixed alkali. Dr. Prout had never seen so much saline matter from the cutaneous surface. It became deliquescent in brown paper two or three hours after being removed from the living skin.

Alkaline Urine.—Potassa and soda exist both in the blood and urine in the form of salts, but it is probable that ammonia occurs in the urine only, being found there in combination with hydrochloric, phosphoric, and lithic acid. Excess or defect of the fixed alkalies in the urine has not at present been found connected with any morbid state of the blood or of the constitution, but their internal use, or that of their carbonates, renders the urine alkaline. The alkalinity of this fluid almost always depends upon ammonia or its carbonate, and accordingly the fixed alkalies act through the blood in an indirect way in producing this effect. Chemists regard the decomposition of urea as the source of the carbonate of ammonia; but if urea be derived ready formed from the blood, does this decomposition take place before or after it has passed the kidneys? Certain aliments render the urine alkaline. M. Chevreul found that in dogs it became so by feeding them on non-azotised diet; but it is important to bear in mind that the alkalinity produced by aliments, drinks, and medicines, taken at intervals, or in one or two doses, is observed only in a part of that which is voided in twenty-four hours. Alkaline urine is generally pale and turbid, more especially if the phosphates are in abundance; but it now and then happens that, when clear and high-coloured, it presents this reaction. It must not be assumed that alkaline urine has always the same composition or the same signification, it may be secreted alkaline, or become so in the bladder, or it may become so rapidly after exposure to the air, and in a general way the former may be distinguished from that which becomes alkaline by decomposition, by the absence of the odour of decomposition. Urine secreted alkaline is indicative of very different states of the blood and constitution. Thus, in a case of diseased kidneys, with phthisis and other ailments, the urine being alkaline and turbid on emission, and more turbid on the addition of nitric acid, owing to its containing albumen. In a case of phosphatic gravel being turbid and alkaline, and depositing phosphates, the patient having been put on azotised diet, a small quantity of nitric acid first rendered it transparent by the solution of the phosphates, and then again turbid by the precipitation of lithate of ammonia; in a case of chronic gastritis the phosphates of turbid alkaline urine were immediately dissolved by nitric acid, and the fluid rendered transparent, indicating that it contained no albumen, and but little urate. It occasionally happens that it is sometimes neutral and sometimes alkaline. M. Rayer states also that the urine is rarely alkaline in typhoid fevers, but more frequently so in the cachectic state which follows them, and that it is frequently so in many bad states of the constitution, yet little known. As urine may be rendered alkaline very certainly by acting on the blood with alkalies and alkaline salts, so that which is secreted alkaline may be rendered acid by acting on the blood with mineral acids, although these should not be detected in the urine.

Fatty Matter, Chyluria.—The urine is occasionally opaque and has many of the physical characters of chyle, owing to the admixture of a large quantity of the fatty matter, of which traces only are found in the healthy state. For the purpose of separating the fatty matter, it must be treated with ether, in much the same manner as described on a former occasion, when treating on the serum of the blood. Fatty matter has been found in some kinds of calculi. M. Chevreul relates a case in which oleine and stearine were obtained from urine; and M. Barruel found a substance resembling the fatty matter of the brain in urinary depositions. It may occur together with mucus; but, according to M. Rayer's experience, chylous or milky urine always contains an excess of fatty matter, and at the same time albumen. Accordingly, after separating the fat, the albumen must be coagulated by alcohol, or ebullition, and the residue treated with water, to detain the urea. Urine of this description is almost always indicative of the "milky" state of the blood formerly described.

Mucus.—It is to this principle that urine

owes its property of frothing on being shaken immediately after emission. In the physiological state, according to M. Rayer, the mucus of urine never presents the appearance of globules under the microscope, but in the diseased state it does so generally, and it is then always regarded by him as muco-pus. M. Donné and this author consider that globular mucus is not distinguishable microscopically from pus, but Rayer relies on the following test: add a little ether to the doubtful substance; this menstruum dissolves fatty matter from pus, which may be obtained again by evaporation on a slip of glass. Mucus never contains fatty matter. An excess of mucus in the urine is always referrible to diseases of the urinary passages.

Besides the changes which the urine undergoes in consequence of a modification in the proportions of its natural constituents, there are others which depend on the existence of various animal humours and principles, which in their proper form, or by their elements, are also derived from the blood.

Milk.—It is a general opinion that milk is liable to occur in the urine, especially during lactation, when the breasts fail to secrete it. Milky urine should contain caseum, coagulable by acetic acid, and present to view, under the microscope, milk globules. Rayer found this in two cases, but in both milk had been added to the urine. There are many cases on record in which caseum is said to have been detected, but some of the best authorities are sceptical, and refer these cases to the fatty urine above described, and since the microscope has been resorted to the failure to detect milk globules has tended to confirm these doubts.

Sugar.—The presence of this is a pathognomonic sign of diabetes mellitus. It is generally believed, and Rayer entertains the opinion, that the urea in this case is proportionally diminished, but Mr. Kane has stated, after an experimental inquiry, that the usual quantity is voided daily by diabetic patients. When urine contains sugar, its specific gravity is high—usually above 1.030; it has a pale colour, and generally, but not always, a sweet taste, diabetic sugar being sometimes as insipid as gum. M. Rayer recommends for its detection to add a little yeast, by which the alcoholic fermentation is excited, and the quantity of carbonic acid disengaged, and which may be received over mercury, and, compared with the volume of the urine, will enable us to arrive at the quantity of sugar which the latter contains. The presence of sugar in the urine is an unequivocal sign of a morbid state of the blood. We shall, on a future occasion, find that diabetic blood frequently, if not constantly, contains both urea and sugar. We are indebted to Dr. G. O. Rees for a knowledge of the important fact, that diabetic blood contains urea; this substance is not mentioned in Müller's analysis, but Dr. Rees speaks with perfect confidence on the subject. He has not been able to obtain more than, and not always so much as, $\frac{1}{3333}$th from the serum of patients affected with coagulable urine and diseased kidney.

Pus.—Urine containing pus is usually turbid or lactescent on emission. Left to itself it separates into two layers, an upper, which is wheylike, and a lower, opaque sediment, generally of a dull milky aspect. Pus in minute quantities presents under the microscope pus globules, but unfortunately there is no very definite distinction between them and the muco-purulent globules before alluded to (Table XXI., fig. 18 and 20); still, the existence of those globules will enable us to distinguish these animal humours from other urinary substances, and pus may be distinguished from mucus by containing albumen, which renders it coagulable by heat, alcohol, and acids, and by affording fatty matter to ether, both which substances are wanting in mucus. M. Rayer has directed attention to the action of ammonia, which converts pus in urine into a ropy slimy matter, varying in consistence with the quantity of alkali employed, and he has made this most important observation, that purulent urine is frequently secreted *acid*, the pus having at that time the aspect of white wax, and that it becomes ropy and slimy only as the urine assumes alkaline qualities. The great practical importance of this, in reference to the employment of acid and alkaline medicines, is obvious. The question of the existence of pus in the blood, and its passage by the kidneys, does not belong to this place; I shall now only remark, that the evidence on which the affirmative is held does not rest upon the pus globule being found in the blood. It would be manifestly erroneous to imagine that the pus globule, so much larger than the blood corpuscle, as we shall find it to be, could traverse the coats of the blood-vessels in any part of the system.

Spermatic Fluid.—The most unequivocal proof of the existence of the spermatic fluid in the urine is the animalcules (fig. 19) which may be seen with the microscope. They are killed by that fluid but not by pus, and owing to their greater specific gravity they are to be found in the sediment, and may be detected several weeks after its formation.

Oxalic Acid does not exist naturally in the blood or urine, but is occasionally found in the latter in combination with lime, as a greenish or blackish sediment, and, less rarely, in the form of gravel or calculus. It is indicative of a particular diathesis or state of the blood. We know nothing of the blood which leads to this deposition, except,

perhaps, that it is totally different from that which obtains when lithic acid is deposited, and incompatible with it, since, as remarked by Dr. Prout, the two states never occur together. Cases have been recorded in which oxalic-acid deposits in the urea have been found after the long-continued use of sorrel; Rayer admits these facts, but thinks them very rare, as they must necessarily be.

Many animal acids are contained in morbid urine, according to different chemists, as, for instance, the *purpuric*, *butyric*, *benzoic*, *rosacic*, and *hipouric;* but in general there is the greatest discrepancy in the statements made by different individuals, and, as observed by M. Rayer, the subjects require to be investigated anew. We can only at present conclude that the existence of these numerous constituents in the urine is indicative of equally numerous modifications, to which the blood may with great reason be imagined liable, although, in many instances, they are referrible to the more partial effects in the blood of morbid actions in the urinary organs themselves. The materials of the *bile* are contained in the blood, traverse the kidneys, and are found in the urine in affections of the liver, and in diseases attended with a mechanical interruption to its usual course; they may be detected by the change of their colouring principle from yellow to green, produced by nitric and hydrochloric acids; and *xanthic oxide* and *cystine* should not be omitted in the catalogue.

Carbonic Acid and Carbonates.—Mr. Brande entertained the opinion that carbonic acid exists in a free state in the urine, which Berzelius disputed; but it does not appear that any very rigid examination of this question has been entered into since the discovery that the blood contains this and other gases. At all events, Dr. Prout and others have frequently found carbonate of lime, and occasionally carbonate of magnesia, as constituents of urinary calculi; but we have no knowledge of the corresponding states of the blood. Dr. Reid Clanny obtained the same gases from the urine of a diabetic patient as from the arterial blood, viz., oxygen, carbonic acid, and nitrogen.

Blood itself, or its more essential proximate principles, is frequently mixed with the urine. Blood occurs in various forms, in consequence of many diseases of the urinary organs, and also in many affections involving a morbid condition of the whole blood. It produces in urine the various shades of black, brown, and red. The *corpuscles* may always be detected with the microscope, however few in number, and when only a suspicion is entertained that the urine contains blood. In chronic affections of the liver, the urine having a very deep red colour, the use of the microscope may be indispensable, to determine whether it contains blood. The blood corpuscles in urine are usually puckered, and smaller than natural, and they become decomposed, and ultimately dissolved when ammoniacal. When blood occurs in large quantities, it is coagulated, and forms clots in the pelvis, ureters, or bladder, and in this case the urine is loaded with corpuscles recognisable by the microscope, and albumen coagulable by its proper reagents. This last proximate principle, derived from the blood, is one of the most important of those which are detected in urine.

Albuminous Urine.—Whenever urine contains a matter coagulable by heat and by nitric acid, which is not precipitated by acetic acid, it is albuminous. The appearances presented on the application of these tests are extremely various, depending for the most part on the quantity of albumen present. It may be, 1. *Gelatinous by heat.* 2. *Very strongly coagulable;* a distinct precipitate, separated by heat, and yet occupying, after 24 hours, nearly the whole fluid. 3. *Strongly coagulable*, occupying half the volume after twenty-four hours. 4. *Moderately coagulable*, occupying a fourth. 5. *Slightly coagulable*, one-eighth. 6. *Feebly coagulable*, less than an eighth. 7. *Hazy by heat*, where it becomes cloudy, but does not form visible flakes, a few seconds after ebullition. The precise quantity of albumen present may be determined by washing in alcohol, drying, weighing, and subtracting the amount from the total quantity of urine employed. The turbid part of albuminous urine submitted to the microscope presents lamellæ of a membranous appearance, semi-transparent, of a whitish or yellowish colour, irregular shape, and variable dimensions. There are many chemical distinctions respecting this kind of urine which are of the utmost practical importance. Coagulable urine, which contains milk or caseous matter, for instance, is precipitated by acetic acid. Albuminous urine is generally acid, but sometimes alkaline, and alkaline urine may become turbid by heat in consequence of the deposition of phosphates; but in this case it recovers its transparency by the addition of nitric acid, and does not become turbid by boiling, if previously rendered acid by nitric acid; accordingly, alkaline urine suspected to be albuminous should be thus treated before the test by coagulation is resorted to. It is also important that alkalescent urine should not only be neutralised, but rendered distinctly *acid*, since it has been ascertained by experiment that where the quantity of albumen is small, minute portions of nitric acid do not produce coagulability. Urine, which contains a large quantity of urates and uric acid, sometimes becomes turbid on the addition of uric acid. When the precipitate is composed of albumen, together with these principles, they may be distinguished from each other by the microscope; the proportion of

the latter may be determined by acetic acid, which does not precipitate the albumen, and the proportions of albumen by heat, which renders the solution of the urates more complete. In this investigation it is necessary to bear in mind that minute portions of albumen in urine are redissolved by very large proportions of nitric acid, which circumstance, it would seem, has been the source of some mistakes. Albuminous urine may be red, from the presence of the colouring matter and corpuscles of blood, in which case nitric acid precipitates all the foreign materials, and nearly discolours it, and the microscope will detect the corpuscles. If it contains pus, both nitric acid and heat show the presence of albumen, and pus globules may be detected with the microscope; this kind of urine frequently contains a considerable quantity of urates or phosphates. The admixture of semen is determined, also, microscopically, by the presence of spermatic animalculæ. In chylous urine, as already stated, the albumen is associated with fat. Thus urine of every shade of colour may be albuminous; it may be of high or low specific gravity; its proportion of urea and of salts may be increased, diminished, or natural; and it may be excreted in quantities equivalent to, or considerably above or below, the natural standard.

A knowledge of the circumstance that urine contains albumen leads to the general conclusion that either a disease of the urinary organs, or a morbid state of the blood exists, temporary or permanent, for it has now become evident, from the investigations of many of the most eminent pathologists, that it is not only quite erroneous to regard this particular symptom as pathognomonic of any special disease of the kidneys, but also to regard it as invariably diagnostic of any disease of the kidney at all. In some individuals the urine becomes albuminous from the use of particular articles of diet, which circumstance has been observed more especially after the use of substances which are well known to produce an increase of its solid constituents with large deposits of lithic acid and lithates, as for instance cheese and pastry, and there can be very little doubt that this effect is attributable to the character of the chyle formed from these materials, and that of the blood into which it is poured. Many medicines produce albuminous urine. So also I shall have occasion to show, in a future lecture, that the fears entertained by some practitioners, that carbonate of ammonia and other alkaline medicines alter the blood—"attenuate it"—are well founded, and accordingly it has been observed of late that urine will become albuminous during their use. Albuminous urine has been observed in acute febrile diseases, in scarlatina, both during the primary fever and the secondary anasarca, and in many chronic diseases, independently of renal lesion. Dr. Copland states that he has observed coagulable urine as a very frequent concomitant of the acute affections of children. It is now generally believed that this symptom occurs constantly in the anasarca which succeeds scarlet fever. With respect to these last cases, there is a dispute among pathologists not yet settled. It is asserted, on the one hand, that the kidneys must be uniformly diseased, and, on the other, cases are given in which after death the kidneys presented no appearance of organic lesion. However this may turn out, there seems to be no doubt that albuminous urine has coexisted with dropsy, disease of the heart, and "perfect soundness of the kidney;" it has been observed also in anasarca concurring with bronchitis, diseased intestines, and healthy kidneys; in a case of aortic aneurysm terminating fatally by rupture, in which the kidneys were sound; and in a case of phthisis with chronic peritonitis and ulceration of the intestines, where the same circumstance was ascertained. In one and all of these cases there can be very little doubt that the albuminous state of the urine is attributable to a morbid condition of the blood. Again, albuminous urine occurs in scurvy, purpura, and hæmorrhagic eruptive fevers; and an observation has been made by M. Rayer of the greatest importance, if it should be confirmed, to the effect that in these diseases the fibrin of the blood is at the same time diminished, and effusions of serum take place in the cellular tissue and on membranous surfaces.

Many other observations have been made on this interesting subject; but the inquiry is as yet in its infancy, and it would be idle to go over the ground on every disputed point; suffice it now to say, that there can be no reasonable doubt of albumen in the urine being frequently dependant on a morbid state of the blood, and to remind you that when symptomatic of renal affection it still involves the condition of the blood. This was illustrated in my last lecture, and the following practical considerations from M. Rayer still further bear it out. When the urine contains albumen with a diminished proportion of urea and of its salts, and is of a low specific gravity, being for the most part sanguinolent, however slight the ailments of the patient, Bright's disease, or one of those conditions of the kidneys which are classed by Rayer under the term *albuminous nephritis*, exists, and if this state of the urinary secretion should continue, the blood is sure to become surcharged with urea, and otherwise vitiated, the consequence of which, if allowed to continue, will assuredly be *dropsy*, most likely anasarca, accompanied or not with serous effusions into the peritoneum, pleura, pericardium, &c., and followed by the death of the patient. Again, when a patient, after a few days' illness, is attacked with violent cerebral symptoms, or repeated vomiting without dropsy, the urine being

loaded with albumen, and of low specific gravity, and we can discover no disease of the heart, kidneys, bladder, or urethra, the existence of albuminous nephritis may be regarded as more probable than a primary cerebral affection, and if the individual has been previously exposed to cold or moisture, or the abuse of spirituous drinks, the existence of a renal affection and of a disease of the blood is almost certain, and if the affection of the kidney goes on, the diseased blood pours out morbid effusions, constituting dropsy, which destroy the patient. If the blood be examined microscopically in the latter stage of albuminous nephritis, the red corpuscles are found to be fewer in number, discoloured and enlarged, and, after some months' duration of the same disease, its proportion of albumen is diminished.

Many other substances, as oil, fat, prostratic fluid, tubercular and encephaloid matter, gelatin, hairs, fæces, silica, resin, &c., appertaining to maladies of the urinary genital apparatus, or to the blood, are occasionally met with in the urine. M. Braconnot found a substance, to which he gives the name of *melanourine*, in some kinds of black urine; and *cyanurine*, having cyanogen for its radicle, has been found in urine of a blue colour.

There is yet another class of materials, alimentary and medicinal, which is detectable in the urine after having been received into the stomach, or otherwise taken into the system. According to the experiments of Woehler, there are many substances which are never detected in the urine, as, for instance, alcohol, camphor, musk, and lead; there are others which pass off by the kidneys, after having undergone decomposition, as in the cases of some of the compounds of cyanogen. The compounds of fixed alkali with vegetable acids traverse the kidneys as carbonates, sulphur in the state of sulphuric acid, and sulphuretted hydrogen and iodine in the state of hydriodate. There are yet others which pass unchanged into the urine, as gamboge, hydrochlorate of barytes, and many colouring matters and odoriferous principles. The fact of these substances being detected in the urine, leads to the fair presumption that they are derived from the blood, but when I inform you that all those which possess well-known and distinct chemical characters have been detected in the blood also, you will see no reason to doubt that these substances are received from the alimentary canal into the blood, and that it is to the blood, medicated or modified by them, that we must refer all their effects in the animal economy. Rayer adopts Woehler's experiments, and gives a copious list of materia alimentaria, and materia medica, which may be detected in the urine. Benzoic acid was detected in the urine of a dog, in combination with a base from which it was separated by nitric acid five hours after that substance had been swallowed. The gallic acid of uva ursi and other astringent vegetables has been detected by the reaction of the salts of iron. The urine of a dog contained oxalate of lime eight hours after taking two drachms of oxalic acid. Alkaline carbonates pass into the urine. Nitre has been detected in the urine of patients who were taking it as a medicine, and also in that of animals, to whom it had been administered for experiment. A patient who had taken 100 grains of sulphate of quinia in 24 hours voided that salt in his urine (Table XXI., Fig. 15). These are only a few of a great number of cases in which medicinal substances have been detected in the urine.

Thus, then, lithic acid, lithates, phosphates, fatty matter, in excess, and the existence of oxalic acid, sugar, albumen, or various other substances in the urine, are indications of distinct morbid conditions, or diatheses, as they have been termed. They all involve deviations from the healthy constitution of the blood. Imagine that they are "manufactured" in the organ—admit that they take their origin from the primæ viæ,—still they involve morbid conditions of the blood. "Functional disorder is not in proportion to the organic disease of an organ;" it is referrible to the blood which traverses it. Whence the medicinal substances detected in the urine but from the blood? If the kidneys, or some other organ, fail to separate them, molecule by molecule, from the blood, what do the mildest frequently become?—Poisons. How frequently are skin diseases through the blood the result or the concomitants of urinary affections! Dr. Prout has remarked that persons affected with urinary derangements are particularly liable to diffuse inflammation. M. Solon, as we learn from his reviewer in this country, has lately arrived at the conclusion, after the examination of the urine in 150 cases of acute disease, that it affords a *critical precipitate* by the action of nitric acid in seven out of every ten instances. "When it presents itself, in the course of an acute disorder, in the form of a transverse disk of flocculent appearance, and four or five lines thick, the practitioner may rest satisfied of the approaching establishment of convalescence. This peculiar condition subsists one, two, or three days;" it would appear to be composed of lithate of ammonia,—sometimes of albumen. "Subsequently the urine increases in density, and usually becomes colourless; finally, it gradually reassumes its normal characters." Have, then, these latter metamorphoses of the urine their source in the blood or not?

CLINICAL LECTURES

ADDRESSED TO THE

STUDENTS OF THE MIDWIFERY CLASS

AT THE ROYAL SCHOOL OF MEDICINE,

BIRMINGHAM,

BY

J. T. INGLEBY, M.D.,

Fellow of the Royal College of Physicians, Edin.

LECTURE VI.

A COMPLICATED CASE OF OVARIAN DROPSY.

GENTLEMEN:—The subject of encysted dropsy of the reproductive system in women is an exceedingly interesting one: six specimens illustrative of this peculiar disease are now placed before you; the first consists of a collection of fluid in the fallopian tube; the second is a small cyst attached by a narrow stalk to the broad ligament, and covered by peritoneum; it sometimes grows from the ovary itself, and is common to every period of life, even to infancy. Neither of these kinds of tumours ever, I believe, acquires a large size; the third is a malignant tumour, having a very nodulated surface, and embracing many varieties of solid structure, in connection with compound cysts; the fourth, fifth, and sixth specimens represent the simple form of encysted ovarian dropsy, originating in one of the vesicles of De Graef, as is very clearly displayed in the fourth specimen; the fifth (taken from the same subject as the fourth) is an admirable illustration of ovarian dropsy in a more advanced stage; the sixth specimen, removed from the body some days ago, represents a case to which I now request your closest attention; the facts possess an unusual degree of interest, not only in a physiological, but in a practical point of view. I shall first state succinctly the history of the case, commenting on its most distinguishing features, and afterwards add a few remarks on ovarian diseases in general.

CASE.—The lady who formed the subject of this case was unmarried, and fifty years of age at the time of her death; and the commencement of her disease was marked by a tumour in the groin, which continued progressively increasing in size during a period of about twenty years. About three years ago she consulted three of the most eminent men both in London and the provinces, whose opinions, however, relative to the propriety of tapping, by no means agreed. I was called to see the patient about eight weeks ago; she was exceedingly weak, very sallow, and breathed with difficulty; the abdomen was excessively distended by a swelling which fluctuated distinctly above the umbilicus, but obscurely below it; and she was generally anasarcous: I recommended her not to be tapped, and, indeed, in a few days afterwards, the respiration became so very laborious as to threaten immediate death, and tapping was imperatively necessary. The trocar was introduced in the usual place, and two gallons and a half of straw-coloured serous fluid were drawn away. It was remarked that the canula could not be made to pass beyond two-thirds of its length, the obstruction being occasioned by a firm resisting body. On withdrawing the canula, a large and apparently solid tumour could be felt in the abdomen, fluctuating at its superior part, but at that time nowhere else. It was our impression that the enlargement consisted of the ovary, partly in a solid state and partly encysted, and that we had emptied only one of the cysts.

Decided relief followed the removal of the fluid, but it was only of short duration; for in less than three weeks the abdomen became distended as before, the respiration was equally laborious, and the extreme exhaustion led us to think that a repetition of the tapping would not be productive of relief. We did not, therefore, recommend the measure, and she only survived a few days.

The body was examined fourteen hours after death. In the first place, the trocar was introduced below the umbilicus, and about two gallons of the same kind of fluid were drawn away as at the operation during life. The abdominal peritoneum adhered partially to the structures underneath it, namely, to a large cyst above the umbilicus, and to the uterus below it.

It was evident that the trocar had not entered the cyst at all, but had merely penetrated the peritoneal cavity, where the serous fluid, which was drawn away, had been contained. The uterus was very greatly enlarged, but of healthy structure, and, together with its appendages, was widely spread out over the inferior part of the cyst to which it adhered as closely as possible, and occupied the whole of the space from the brim of the pelvis to the umbilicus. The cyst possessed a simple structure; the upper two-thirds contained about fifteen quarts of a dark grumous kind of fluid, and the lower third was filled with a dark yellow matter of the consistence of cream cheese. The left ovary was in a healthy state, but there were no natural traces of the right.

Remarks.—In this case we have the complication of a greatly enlarged uterus adhering to a cyst, distended partly with a fluid, and partly with a solid substance, together with hydropic effusions, both in the peritoneal sac and the cellular tissue. These dropsical effusions arose, I presume, from the presence which the enlarged structures had, for a length of time, made over the

great blood-vessels and absorbents. The case is instructive in several respects; it furnishes an additional evidence, that a simple cyst may remain many years in a distended state before life is brought into immediate danger. It is also an evidence of the impossibility of emptying the cyst of its solid contents by any operation during life. The removal of the fluid contents from the cyst could only have been accomplished by penetrating *above the umbilicus*. Indeed, had the trocar been introduced *below the umbilicus* the uterus itself must inevitably have been penetrated, and the result would almost certainly have been fatal. The precise nature of the solid part of the swelling could only be conjectured during life; but considering that a solid enlargement of the ovary is almost always connected with a cyst, it might reasonably have been regarded as a portion of the ovary itself—not a merely thickened state of the cyst, but a parabysma of the ovary—a malignant form of disease. The difficulty of forming an accurate diagnosis in a case of dropsy, combined with a solid tumour, is also exemplified in the case before us; and I am not aware of any mode of investigation by which the nature of a solid swelling, resembling the one in question, can, with certainty, be ascertained. In the ordinary class of cases, the diagnosis between ascites and ovarian dropsy is sufficiently distinct.

Independently of the history of the case, and of the distinctness of the fluctuation in ascites, the abdomen undergoes a very material subsidence when the body is supine. In the case of an ovarian tumour, on the other hand, the abdomen is almost equally prominent, whatever be the position of the body, a remark which is equally applicable to a state of advanced pregnancy. The value of percussion in distinguishing sounds over the swelling, and over the parts around it, is inestimable. It has been said, on authority, that "a brisk pressure of the hand upon the abdomen *easily* removes the water, and strikes against the cyst, the resistance of which is *always* perceptible;"* but, I think, I have already proved to you the impracticability of reaching the cyst, where there is an extreme tension of the abdominal parietes. The same difficulty may be found in distinguishing the gravid uterus when complicated with ascites, and even at the seventh month of pregnancy. Dr. Montgomery found it impracticable to feel the child by any mode of examination that could be adopted. If the lower part of the abdomen, in a case of dropsy, be occupied by a very solid body, the fluctuation being indistinct, and the gaseous sound being clear only at the sides of the swelling, we may fairly presume the disease to be ovarian; unquestionably, however, gas may be generated in the interior of the cyst. But assuming the fluctuation to be particularly distinct, and the sounds clear *above* the umbilicus, but very dull *below it*, what inference would you draw? I suppose you would say the disease was ascites, and the probabilities would greatly favour such an opinion. You will, however, recollect that the fluid in an encysted dropsy may be unusually thin, and the inferior part of the cyst almost, or altogether, in a solid state. Again, when the extent of the effusion is so great as to distend the abdominal parietes, the sound will be very dull, and the ovarium may be too high above the vagina to be reached with the finger. In a case of ovarian tumour, complicated with ascites, the interposed fluid is usually of small amount, and, if the patient be recumbent, will not obstruct the fingers from striking against the hard tumour which lies underneath it. But where the distension is extreme, nothing short of an inspection of the fluid, and of feeling the thickened cyst, on its being emptied, will remove the difficulty. Still, the signs already mentioned, afforded by percussion, may be generally depended upon. The mode in which the different sounds are produced have been ably described by M. Rostan, and I will quote his own words:—

"If (he remarks) we proceed from the inferior to the superior part of the abdomen, we shall, at first, have a flat sound, while, at the most prominent part—that is, about the umbilical or epigastric regions—we shall perceive a clear sound, like to that which we obtain on striking a bladder-full of air. In encysted ovarian dropsy the reverse is the case—that is, the sound is clear at the inferior part, and dull at the superior. These differences are produced by the different relations which fluid effused into the peritoneum, and an ovarian cyst, have to the intestines. The dullness which we find at the inferior part of the abdomen in ascites, is the result of the accumulation of the effused fluid, which gravitates to the most dependent part of the peritoneal cavity; and, while the collection of fluid augments there, the intestines become displaced, and it is important to know of this displacement, because it is that which accounts for the clear sound in the superior regions. In fact, this sound is the result of the less specific gravity of the gases contained in the intestinal cavity, in virtue of which the intestines are raised upwards, as the fluid on which they float accumulates below. The state of the parts in encysted ovarian dropsy, is not at all the same; for in ascites the fluid is freely spread out within the peritoneum, while, in the other case, it is shut up in a more or less resisting bag, which gradually increases in size by the accumulation of serous fluid in its interior, and, as

* Boivin and Dugès "Practical Treatise," p. 465.

it becomes displaced, presses on the intestines of the side opposite to that on which it develops itself, and at last ends by occupying a greater or smaller space in the abdomen. This case is very different from the first; here the intestine does not float in the accumulated fluid, as it is separated from it by a wall of membrane; and, therefore, instead of being raised upwards, it will be kept and pressed against the inferior part of the abdominal parietes; and thus, in this case, we find its dull sound high up, corresponding to the cyst, and its clear one low down, where the intestines are to be found distended with gas."*

Exceptions to this doctrine will, unquestionably, now and then arise, and I shall briefly mention a case to you in proof of the difficulty which may arise in distinguishing ascites from ovarian dropsy. I was requested to see a middle-aged, unmarried lady, in consequence of a doubt entertained by her medical attendants relative to the nature of her case: it was a matter of uncertainty whether she had ovarian dropsy, or simple ascites. The abdomen was greatly distended; the epigastrium fluctuated quite as distinctly as it usually does in ascites, but the hypogastrium was hard, and fluctuated obscurely. The patient died a few days afterwards, and the body was examined. An ovarian cyst was found occupying the abdomen generally; about the epigastrium the sac adhered closely to the peritoneum, but above the hypogastrium it was quite free from adhesions; the inferior part of the cyst contained a large quantity (from two to three pounds, I should conjecture,) of a deposit of a pink colour, of the consistence of thick curd. The fluid contents of the cyst resembled an infusion of coffee, both in colour and specific gravity. The same kind of deposit occupied the inferior part of the cyst in this case, as in the one first mentioned to you, the only difference being in colour. At the first moment I regarded this substance as a separation from the blood, but I now consider it as a secretion from the interior of the cyst, which, on account of its greater specific gravity, sank to the bottom. This deposit constituted an unhappy complication, for it rendered the diagnosis obscure, and, on account of its consistence, could not be removed by tapping. "It is in cases like these (as Rostan observes), that we feel the importance of not confining ourselves to one sign, but of accurately scrutinising every symptom that can throw light on the diagnosis."

The important question of tapping is often attended with perplexity, even at the present day. Since Dr. Hunter's opinion was published,† that a patient labouring under ovarian dropsy will have the best chance of living longest who does the least to get rid of it (an opinion which has been re-echoed by Drs. Denman, Blundell, and the most eminent men in the profession), it has been generally admitted as a rule of practice, that tapping should always be deferred until the last moment which is compatible with the patient's safety. The main objections to tapping are, the consequent diminution of strength, the rapid reproduction of the fluid, and the possible inflammation of the interior of the cyst. The neglect of the operation may, however, be productive of serious evils. The distension, when extreme, has the effect of producing severe pain. The compression has also the effect of fearfully obstructing the functions of the abdominal and thoracic viscera.

Early tapping, though an exception to the general rule, may, indeed, be absolutely necessary. Two years ago I was called in consultation to the case of a recently married young woman, in whom ovarian dropsy had suddenly come on, and in a few weeks had made great progress: the chief symptoms were emaciation; great rapidity of pulse; hectic fever; increased bulk; with fluctuation, and *great pain* over the swelling. She was tapped within two or three months from the apparent origin of the disease, with the most decided benefit; she lost the pain, regained her appetite, and greatly improved in appearance; but after a few repetitions of tapping the symptoms returned, and she sank under the disorder. In old cases of ovarian disease embarrassment of breathing, which nothing short of the diminution of the tumour will relieve, is one of the most frequent symptoms. My esteemed friend, the late Dr. Darwall, published a paper in the "Midland Medical Reporter," to prove that no other symptom would justify tapping. I answered this paper, and adduced arguments for the operation. I said, that one of the most serious consequences of ovarian pressure was to be apprehended from the progressive interruption to the discharge of the alvine evacuations, until at length the obstruction be complete, the pressure not even allowing an injection to pass. I then mentioned two cases, in one of which the bowels were acted upon after the abstraction of the fluid contents of the ovarian cyst; in the other the operation was unavailing, and the obstruction proved fatal.‡

Since the reply was published, an old pupil of my class sent me the preparation of an ovarian tumour, which is now before you, together with the history of the case. The pressure which this ovarian tumour made on the intestines had the effect of producing

* "La Presse Medicale."

† "Med. Obs. and Inquiries," vol. ii. p. 41.

‡ See "Midland Med. and Surg. Reporter," No. 6, vol. 1, and No. 7, vol. 2.

a fatal obstruction in the bowels; and during *three months* the sufferer passed only *two alvine evacuations*. At length the intestines ulcerated, the contents passed into the peritoneal cavity, and life was speedily terminated. As you may perceive, the fluid was contained in several compartments of the cyst, and, consequently, relief from the operation could only have been very partial. The tumour was not, however, punctured during life.

Here, again, is a very similar specimen of disease, which, as already observed, was removed yesterday from the body of a woman whom I had an opportunity of seeing on two occasions a few weeks ago. At that time she had a protracted uterine hæmorrhage, from fibrous enlargement; she had also a tumour in the hypogastrium, which then presented a feeling of solidity. It appears that some weeks subsequently to my seeing her, effusion took place into the peritoneal sac, attended by an alarming form of vomiting and constipation, under which she died. On examination, F. M., the right ovarium, as large as an adult head, and containing fluid in numerous cysts, pressed so immediately on the colon, as mechanically to obstruct the discharges, and, consequently, prove the cause of death. The left ovary resembled a large-sized egg, and was apparently solid, but it contained about an ounce of serous fluid. The uterus is much enlarged, and purulent formation has taken place in the centre of a fibrous tumour attached to the fundus, and a small polypus is seen growing from the os uteri, and from the cavity also. As the ovary was not bound down by extensive adhesions, an obstruction so complete as was here could scarcely have taken place, had it not been for the pressure of the superincumbent serous fluid upon it, and the resistance made by the distended coverings of the abdomen.

In a case like this it is possible the cyst might be best opened through the walls of the rectum, if the bulging and fluctuation be felt in that direction. The tumour proved fatal simply by its mechanical pressure;* and, notwithstanding the coincident disease of the uterus, the character of the disease is not malignant, neither as respects the uterus nor the ovary.

When the distension of the cyst is suffered to increase to the greatest extent of which it is capable, it inflames and ulcerates, pouring out its contents, sometimes through the abdominal parietes, but more frequently into the peritoneal cavity, or into the hollow viscera, so that the process may be either a salutary or an imminently dangerous one. Is a rupture of the cyst desirable? Is the risk equal to the chance of a cure, remote as it must always be? The extent of my information on this subject is derived from the result of three remarkable cases which occurred within my own personal observation. I will give you the heads of each case.

First Case.—I was requested to see a poor woman, whose size had, for several years, rendered her an object of notice, and who was reported to have suddenly burst. I saw her within a few minutes after the change had taken place. The cyst had given way through the abdominal parietes; a little inundation occupied the chamber floor, and the fluid was passing rapidly through the ceiling into the kitchen. She perfectly recovered, and was alive, I believe, some years afterwards.

Second Case.—The subject of this case was a middle-aged, married woman, who had never borne children. After having for two years suffered from embarrassed breathing and increasing bulk, accompanied by distinct fluctuation, varying, however, in distinctness in different parts of the tumour, something appeared to give way in the abdomen, and she passed with her urine several gallons of a thick albuminous fluid, mixed with shreds of coagulable lymph and hydatids. This returned at intervals during upwards of a year. The abdomen became nearly flat; she entirely recovered, and has now remained quite well for five or six years.

The third Case occurred in a middle-aged, married woman, with a family. Four months previous to my seeing her she perceived a tumour in the hypogastrium, and in three months afterwards experienced pains of an expulsive character, which progressively augmented in severity, and, in consequence of the obscurity of the case, I was requested to see her. The vaginal entrance was occupied by a large globular elastic swelling, consisting evidently of the posterior wall of the vagina in a prolapsed state, and being the result of a long-continued violent straining. The vagina seemed to terminate in a blind sac, but, after a careful examination, I detected a small, semicircular aperture, quite above and over the symphysis pubis, which I thought was the os internum; but I could barely touch it with the finger, and it was impracticable to introduce the hand within the vagina. On passing the finger into the rectum a large hard tumour was felt bulging through its walls. The abdomen was greatly and unevenly distended, its bulk being equal to that in an advanced state of pregnancy.

* Dr. Robert Lee mentions a case in which an ovarian cyst, having become firmly impacted in the pelvis, produced all the symptoms of stricture of the rectum.

Above the umbilicus, the tumefaction consisted chiefly of flatus; but *below the umbilicus*, its character was that of solidity, especially at the sides. I passed a catheter, but the bladder was empty. The fluctuation was obscure in every portion of the swelling, and especially at its inferior part. A very remarkable change occurred in the progress of this case a few days after I had been consulted, for on Friday, May 18th, vomiting took place, succeeded by a marked diminution in the size of the abdomen. The vomiting was at first fæcal, and excessively offensive, but it soon assumed a brown colour, and sometimes had a green hue. The vomiting continued with scarcely any intermission until the following Thursday evening, when it sensibly declined, recurring only about once an hour. On the following day it ceased, and the abdomen was then almost flat. It is impossible to compute, with accuracy, the quantity brought up, but it was supposed to have reached eleven or twelve gallons. The quantity which escaped the last three days was measured by Dr. Nelson and myself, and amounted to twenty-eight pints. She may be said to have passed the first few days in one continued act of vomiting. The tumour must have consisted of an ovarian cyst, complicated with a parabysma, the contents of the cyst bursting into the intestines, and being mixed with the gastric and intestinal secretions, was discharged by vomiting. She had no evacuation by the rectum whilst the vomiting continued; and she was supported for many days by means of strong animal broth mixed with the yolk of eggs. I examined this woman on the 11th day of November. She was then perfectly well in health, but the solid tumour below the umbilicus was as large as a child's head, and sometimes very painful. I could feel the os uteri very distinctly, and on either side of it I could distinguish the solid ovarium resting on the brim of the pelvis, though mainly on the left side of the abdomen, and extending from the brim of the pelvis to the umbilicus. Eleven months afterwards, during my absence from home, this woman had an illness which terminated fatally, but, unfortunately, there was no examination.

Before concluding, I shall say a few words relative to the removal of the enlarged ovary by operation. Of Mr. Lizars' cases I forbear to speak; but I have already apprised you of the success which has attended the extraction of the sac through the aperture made in the abdominal walls after its evacuation by tapping. To render the operation practicable, the sac must be in its early stage, and unadherent; and I believe that adhesions rarely, if ever, take place whilst the sac remains small. More numerous cases, however, can alone give permanent value to an operation which, in the only instances (three in number) in which it has been performed, has been perfectly successful. For more extended information on the subject of the present lecture, I beg, Gentlemen, to refer you to an elaborate paper by Dr. Bright, illustrated by a great variety of examples, in the 6th Number of "Guy's Hospital Reports." It is a very instructive paper, and I recommend you to read it with the closest attention.

ON

DISEASES AND DISTORTIONS OF THE SPINE.

BY CHARLES VERRAL, M.D.

To the Editor of THE LANCET.

SIR:—I have still another cause for quarrel with writers and lecturers on diseases and distortions of the spine, &c. Again do I find food for complaint in the looseness and indefiniteness of their language, and, perhaps, in nothing so much as in their use of the word cure, or of expressions synonymous with it. When unprofessional persons, the parents, perhaps, of a deformed and suffering child, read about cases of posterior curvature with disease being *cured* in six months, they naturally expect not only that every symptom of disease, but that every appearance of distortion also, will have vanished by that time, and will attribute blame to their medical advisers if their hopes be not entirely gratified. Yet it is plain that they cannot often be so, since the cure of the greater number of diseased spines actually consists in the formation and consolidation of an angular posterior curvature. If there be simple inflammation, or mere incipient disease, in some part of the vertebral column, the adoption of a proper method of treatment may probably, in a few months, produce the perfect CURE, although few practitioners would venture, like Mr. Hale Thomson, to pronounce it to be absolutely certain, and to foretel the exact time in which it would be effected. Unfortunately, however, cases of this simple description are too rarely presented to the notice of the profession. Generally speaking, it is not until some posterior curvature has been formed that the alarm is taken, and the medical person consulted; and, indeed, in sickly children, whose bones are, perhaps, soft, and in whom a scrofulous diathesis prevails, the curve not unfrequently occurs with few and very slight premonitory symptoms; it is even, sometimes, the first indication which the mother, or the nurse, receives of the existence of spinal disease.

And what is a posterior curvature of the spine? We may, perhaps, be allowed to describe it by quoting the following pas-

sage from Mr. Thomson's lecture.* "Seldom less than two of the vertebræ, and the intermediate substance, are affected in Pott's disease. The substance of these bodies becomes absorbed, the direction of the spinal canal becomes altered, and the posterior processes form an acute angle, the abrupt prominence of which, when the disease is of long standing, affords an index of its nature." And let me ask if this is a case which, to a certainty, is capable of being *perfectly cured* in six months? But it may be even worse than this. There may be caries of the bones; there may be, not simply absorption, but absolute destruction of the intervertebral substance; there may be a formation of matter which, slowly increasing in quantity, and as slowly making its way to find an external opening, may be many months before it effects that object; and, when that is done, and the matter is discharged, how many months—nay, how many years—may it be before the sac is obliterated, and the sinus or sinuses healed? And yet, without describing either the state of the patient or the stage of the disease, Mr. Thomson ventures to say, that "this system, if carefully pursued for six months, will perfectly remove the active disease, and restore the patient's locomotive functions." Under the circumstances that I have supposed, this is surely promising more than we can be certain of performing; but, in truth, there is in this little passage much of that of which I am complaining. It not only promises perfectly to remove the active disease (a very indefinite expression), but also to restore the locomotive functions, which, I suppose, "being interpreted," means the use of the legs. This is making "confusion worse confounded."

In the description which I have quoted, and in the cases related in connection with it, we have never been told that the use of the legs has been taken away. Is the student to conclude that the use of the legs is lost, or greatly impaired, in all cases of spinal disease? Unfortunately, I am almost tempted to say, this is too rarely the case, or patients, so far as position goes, would be less improperly treated than they now are. The truth is, that in very many of the very worst cases, we find the locomotive functions to be very slightly, if at all, impaired. I have under my care a poor girl, with an immense posterior curvature of the dorsal vertebræ, who had been for eight months an out-patient of St. George's Hospital; who had been able, and strange to say, had been permitted, continually to walk thither from her residence in Stratford-place, Oxford-street, although the disease and the curvature were still progressing, until the latter had nearly attained its present enormous size; and Mr. Thomson had himself a patient in the Westminster Hospital, in whom the bodies of all the dorsal vertebræ were utterly destroyed, and who, for some weeks before he died, expectorated portions of the decayed bones, but who certainly had not lost the use of the legs, or he could not have walked about the hospital as he was allowed and was accustomed to do. If, however, the above passage appears to be somewhat ambiguous or obscure, there is no such objection to be made to the succeeding paragraph, in which the lecturer is made to say, that "in six months from the adoption of the plan, the patient, he had no doubt, would be quite well." Here we have the perfect cure to be performed in the exact period of six months. And what was the case? Distortion, or no distortion? Caries, or no caries? Abscess, or no abscess? Incipient disease it could not be, for the poor child had been subjected to every variety of mechanical treatment; and it could not, of course, have been at all like the case I have above described, with the destroyed dorsal vertebræ; but what it was we are not at all informed. The statement, if transferred to the canvas, would be mistaken for a Rembrandt, a strong light falling on the cured patient, with a calendar or register in his hand, to show the data, while all the rest of the picture would be enveloped in the deepest shade. "Not light, but rather darkness visible."

All this is as it should not be. A thousand errors of practice are the results of such inadequate or confused descriptions. The young and inexperienced practitioner is led by them to suppose, that every stage of the malady is to be treated by the same means, and that in any state, or stage, it is susceptible of the same favourable termination. Thus we have alteratives given where we ought to have administered tonics; counter-irritants resorted to where they can no longer do the least possible good; and extension employed where its use must probably prove fatal to the patient.

Having found in others so much cause for complaint, I shall endeavour to describe, more accurately and definitely, a few cases illustrative of the different states and stages of spinal disease.

CASE.

John Tarrant, aged 2 years, was brought to me in August, 1837. He had a general curved state of all the dorsal and lumbar vertebræ, with the slightest possible projection of two of the bones. The curve was not merely a bend when sitting (the effect of bodily weakness), it was permanent, and not to be removed by placing the child in any position. There had been compression, and probably absorption, of the intervertebral substance; and had this been allowed to proceed, some of the bones would ere long have come into contact, and then there

* See LANCET, April 20th, 1839, p. 133.

would have been inflammation, anchylosis, perhaps caries, abscess, and death. Happily the alarm was taken soon enough, and measures were immediately adopted to prevent such fatal results. Yet was it a case presenting many unfavourable features. In common with other children, born of the same parents, and living in the same atmosphere, the child had always been weak and unhealthy. He was ricketty, the long bones being considerably curved, and the joints enlarged; he was pale and emaciated; the belly swollen and tense; the appetite voracious, but the body derived little nourishment from the food. He had frequent, almost constant, diarrhœa, and the evacuations were exceedingly ill-looking and offensive. He had never walked alone, but at a year old could crawl about actively, and walk with the support of the chairs, tables, &c. At fifteen months' old he had a bad attack of chicken-pox, and from that time declined greatly. He could not now support himself on his feet, nor even crawl about as he used to do, so that all the day long he was sitting, in the lap or in a chair.

Here was a case of incipient disease without actual disorganisation, and without irreparable distortion. It was a case for cure, and we fortunately achieved it. But it was not a case to be cured in six months, unless, indeed, we could have had—what the abodes of the poor, and a crowded city, do not afford us—nutritious food and a pure air. The first point of practice was to place him in a position to prevent further mischief, and to remove that which had already occurred. I laid him *prone*, and as I saw no reason to be afraid of some slight extension, I so modified the position as to facilitate the return of the spinal column to its natural form. In a short time I ventured to apply some slight pressure upon the curved bones, but no counter-irritants were ever employed, as I hoped that position, rest, a tolerably nutritious diet, and an earnest attention to the general health, would accomplish our object; and I was not disappointed, although the deranged state of the digestive organs long baffled and perplexed us. In the summer of 1838, he first began to walk, and, although still a weakly child, he has been long perfectly free from all spinal disease or deformity.

CASE.

Eliza Meade, aged 11, had, for about ten months, complained of pain and great weakness of the back. She had been under medical treatment, and had lain for seven months supine on a hard horse-hair mattrass, but had continued to get worse. I saw her in July, 1838; she was then pale, thin, feeble, and spiritless; even when lying down she complained of much pain and of a sense of dislocation. There was great tenderness of the lower dorsal and upper lumbar vertebræ, two or three of which were very slightly projected. She could not stand upright, and she walked with much difficulty, leaning over considerably to one side. The pain, indeed, was very considerably increased in walking, or by any other motion. Here, again, was disease, as I felt reason to believe, in its first stage. Happy was it for the patient that the pain and tenderness had given an early warning; happy that she had, in consequence, been ordered to lie in a horizontal position; for although the one she had been directed to adopt was less favourable than that which I afterwards employed, it doubtless tended to arrest the progress of the malady. The treatment that was adopted was similar to that of the last case. Some slight counter-irritants were employed, but no issues or setons. She lay constantly at rest in the prone position, and attention was paid to the restoration of the general health, to which, indeed, the change of posture, and the consequent relief of pain, very materially contributed. In about two months the tenderness of the spine was so much abated that I ventured upon some slight extension and pressure, and in less than a twelvemonth she was able, and was permitted, to walk a little, which she did, without pain, and with the body perfectly erect; and the case has ended without leaving the slightest deformity, and, at the same time, with a perfect restoration of health and strength.

My object in relating these two cases is that of impressing upon the public mind the importance of the very earliest attention to every affection of the spine, and upon the minds of the medical public the necessity of an immediate and persevering adoption of a horizontal posture, as affording to their patients the only reasonable chance of cure. Although there are some points in which I differ in opinion from Mr. Hale Thomson, and especially although we adopt two different modes of attaining the same object, I cannot but cordially pay my meed of approbation to his uncompromising advocacy of the horizontal posture. He has well enumerated the varieties of useless or mischievous inventions, with which ignorant or professional pretenders have deluged the world at large, and to his list of high-armed chairs, of steel arches, of spine supports, and of spine restorers, I might make a considerable addition. I might mention especially some leathern stays, recently invented by a shoemaker at Brighton, which, while, like other things of the kind, they give an artificial, and, therefore, often an injurious support to the body, have a happy propensity to contract the chest, and to prevent the proper motions of the spine. I might also mention a wooden backboard, with straps to pass round the shoulders, and with a hole in the middle, through which the apex

of the tumour might pass, and which was worn by a little girl, until, from the increased projection and from pressure, not only were the pain and tenderness much increased, but paralysis of the lower extremities was eventually induced. And all this to avoid the simple, easy, and harmless process of laying the patient for a few months in a recumbent posture. On the evils attendant upon the various mechanical inventions, and upon the false principles on which they are constructed, I cannot now descant; it will be sufficient here to observe, that the purpose they seek to effect is temporary, but that the evils to which they give rise are permanent, while the very assistance they afford, by superseding and destroying the power of the muscles, renders it difficult ever to discontinue their use. I have this moment been consulted by a young lady, who has worn steel supports for the last five years, with a still-increasing and now enormous curvature of the spine, and who, if she leaves them off for a moment, feels quite incapable of supporting herself in the erect position.

But the profession on this subject has been wofully inert. Its conduct has been also feeble, indecisive, unreflecting, too frequently uninformed; and where empiricism perceives so many weak points it will be sure to make its attacks. The early stage of spinal disease may be said to test, not merely the skill, but the courage as well, and the firmness, of the medical attendant. "There is nothing to be seen, and little, as yet, to be felt," says the fond mother; "may he not sit up to his meals? —may he not go out for a little fresh air?" And she will argue, perhaps, that more harm may be done, by restricting him from air and exercise, than good, by persevering in the position in which you propose to place him. But there must be no compromise. There may be nothing to be seen, but there is enough to be felt, to convince you that there is spinal disease; and, aware of the almost certain cure to result from perfect rest in a proper position, and of the almost certain ruin that attends upon its neglect, or upon its partial adoption, he who has had the courage in so apparently slight a case to propose so important a remedy, must have firmness enough to resist all attempts to supersede its adoption, or to render its use unavailing. Nor is it enough that he prescribe, or even enforce, the use of this proper position; he must himself watch, and control, and modify it, according to circumstances, or he will find it to be inadequately and inefficiently employed. And this is the error arising from mere consultation—the error of those who fancy they can purchase an opinion for a guinea, and cheaply themselves carry into effect the directions of the physician or the surgeon. I am, perhaps, dwelling too long upon this subject, but I cannot fail to be impressed with its extreme importance, when, within this fortnight, I have seen a young lady suffering under disease and incipient posterior curvature, who has been desired by her physician to lie as much as possible; and a little girl, now the subject of immense distortion, with paralysis, whose parents had been told by a most eminent surgeon to keep her in bed as much as they could; and the wife of a tradesman, with incipient disease and distortion, whose medical attendant told her that he "must put in a pea or two on each side of her spine," but who had not been forbidden to stand half the day behind the counter, nor to carry about, during the other half, a great boy, nearly nine months old. A pea or two on each side of the spine may be very good things, for aught I know, though I am not quite sure of it; but how could they be expected to arrest the progress of disease in a patient who was allowed to follow such injurious avocations?

To conclude this part of my subject, and with it this letter, I shall only add, that if I can but promote the universal adoption of a proper recumbent position in this early stage of diseased spine, I shall have helped to rescue from suffering and deformity thousands yet unborn; and a professional life, now verging towards its close, will not have been passed in vain. I am, Sir, your obedient servant,

CHARLES VERRAL.

Lowther Arcade, Feb. 2, 1840.

ON

DISEASES OF THE SKIN.

By WM. ERASMUS WILSON, *Esq., Consulting Surgeon to the St. Pancras Infirmary.*

LICHEN.

DURING the temporary burst of warm spring weather with which this month commenced, I was led to observe the remarkable prevalence of lichen, under its various forms. In the young and plethoric it assumed the character of lichen acutus, in the aged it appeared as lichen chronicus, and in one of my patients, a lady of weakly constitution, it put on the more unusual aspect of lichen circumscriptus. So long as the mild weather existed, the disease was, in many cases, obstinate, and resisted the ordinary methods of treatment, while the sudden return of a colder temperature has, in itself, operated a cure in several instances.

If it be true, that certain cutaneous diseases are dependant for their evolution upon the state of the nervous system, it is especially so with regard to the commoner forms of lichen. We, therefore, in certain instances, see this and other affections at those periods when the atmospheric condi-

tions are such as to call into operation a more active exercise of the functions dependant on that system, particularly the organs of digestion and of secretion, especially in the skin. During the winter months the cutaneous system has been comparatively torpid; a smaller proportion of the vital fluid has been directed towards the external surface; the secretion of an extensive apparatus of glandular organs has been at rest, while an increased vascular supply has been determined to the internal mucous surfaces.

But so soon as the atmospheric warmth is felt by the general system, the skin again resumes its more energetic powers, and the equilibrium between these two important and extensive surfaces is temporarily disturbed. In many instances this disturbance is so slight as scarcely to be appreciable in its transition; but in other cases, particularly where a dermic diathesis exists, its effects are rendered apparent by the development of various forms of cutaneous disease. It was the observation of this fact by the older physicians that induced them to prescribe cooling and prophylactic remedies in the spring of the year, and that same principle, popularised by vulgar tradition, has perpetuated the employment of blood-letting and aperient medicines at the "spring and fall of the leaf."

The use of the bath is a measure of the utmost importance to the preservation of health, one of easy attainment by all classes of society, but one which the perversity of human nature leads us to despise, from its very facility of acquisition. In large cities, where habitations are crowded together, streets are ill ventilated, and the atmosphere is impregnated with soot, dust, and animal exhalations, the bath is absolutely necessary to health, and if more frequently employed would certainly preserve its votaries from many painful and distressing diseases. To the affluent the bath-room is the abode of luxury, but the humblest may attain every necessary object by sponging the skin over every part of its surface with common water, and once in the seven days with a weak solution of subcarbonate of soda. By such simple means the sentient nerves would be healthfully stimulated, the capillary system of the skin excited to perform its natural offices, and disease, particularly of the cutaneous kind, effectually averted.

As an instance of the value of the bath, as a therapeutic agent, I may cite the case of a young man admitted on the 6th of this month into the St. Pancras Infirmary, affected with lichen pilaris over the greater part of his body, accompanied with incessant pruritus, with extensive eczema impetiginodes on both forearms, and impetigo upon the side of one cheek. He was ordered to remain in the tepid bath for an hour every other day, without other treatment than a moderate diet, and was discharged on the 20th of March perfectly cured.

In the minds of the patient, and of the inexperienced, lichen is calculated to excite great apprehension, from the suspicion of its being a disease very justly looked upon with a feeling of horror and disgust, from being generally the companion of filth and uncleanliness. It is, therefore, of much importance to be fully conversant with all the characters which tend to the formation of a correct diagnosis, and to act accordingly. Lichen, from being subject to atmospheric changes, may attack several members of the same family at the same time, without possessing the slightest tendency to be contagious.

Lichen Acutus.—A lady, pregnant with her second child, consulted me for incessant and distressing itching over the back and shoulders, on the loins, and on the outer sides of the arms and legs. On examining those parts I found a number of minute red papulæ, of a pale colour, but becoming brightly red on friction. The papulæ composing this eruption were mostly discreet, but in some situations were collected into groups, and formed patches of variable size, some of which were covered with a thin furfuraceous desquamation. Her pulse was full, and somewhat quickened by the excitement of the disease, the tongue was white and moist, and the digestive system evidently disordered. I bled her to ten ounces, and prescribed a course of gentle aperient medicines. For the local affection I ordered a tepid bath twice in the week, and lotions, composed of one drachm of pyroligneous acid to a pint of rose-water, to be sponged over the surface night and morning, and whenever, during the night, the pruritus and tingling became insupportable. This treatment was most successful, and at the end of three weeks every trace of the affection had disappeared.

Lichen Chronicus.—Two children, the one nine and the other twelve years of age, were the subjects of this disease. The affection was seated on the back of the neck and shoulders, on the front of the chest and epigastrium, on the forearms and legs, but scarcely at all on the upper arms and thighs. The surface was very slightly reddened, but felt uneven and pimply to the touch. The pruritus was increased after meals, but during the night was perfectly insupportable. By means of purgative medicines freely administered, frequent ablutions in lukewarm water, low diet, and weak acid lotions to the surface, the disease rapidly improved, and at the end of a month appeared cured. In a week after this time I was again called to the children, and found that, in consequence of an error in diet, and inattention to the state of the digestive functions, the disease had reappeared,

but was speedily checked by a repetition of the preceding treatment.

LICHEN CIRCUMSCRIPTUS.—A lady of middle age had been suffering, for nearly a fortnight, with most distressing pruritus on the calf of the left leg, which demanded all her fortitude to resist tearing with her nails. The disease occupied an area of about three inches in diameter, was of a dull-red colour, and evidently formed of numerous minute pimples closely aggregated together. There were no other pimples on any portion of her body. Finding her appetite bad, and strength much impaired, I ordered her infusion of gentian, with sulphate of magnesia, in the proportion of a drachm to the half-pint, internally; and an emollient bath, containing bran, every night, at bed-time, to the affected leg, brushing the surface of the disease every morning with a solution of nitrate of silver, two grains to the ounce. By the tenth day the patch had lost all its redness and pruritus, was covered with a thin furfuraceous desquamation, and the tone of her digestive organs and general strength had greatly improved. She has remained well of the affection since that time, and is now much better in health than she has felt for several preceding years.

Upper Charlotte-street, Fitzroy-square.

RHEUMATISM.

ALTERATIVE TREATMENT.

To the Editor of THE LANCET.

SIR:—The insertion of the following case in your valuable Journal will much oblige yours, obediently,

JOHN BRADY.

15, Charlotte-street, Blackfriars'-road,
March 12th, 1840.

Mr. S., a gentleman, aged 32, having been afflicted with rheumatism for several years, brought on, as he imagined, from sleeping in a damp bed, whilst travelling in the country, came under my care about 18 months ago, suffering most acutely. Such were his sufferings, that, day and night, he was in constant pain, and was compelled to leave his bed, in order to lie before a large fire, with the view of obtaining temporary relief. Having tried the usual means recommended in rheumatism, such as colchicum, both in the form of tincture, extract, and powder, combined with morphia, hyoscyamus, nitrate of potassa, Dover's powder, and several other combinations, attending at the same time to the secretions, without obtaining any but temporary relief, I was persuaded that his was not the usual kind of rheumatism, and, consequently, I inquired minutely into the history of his case, and also whether any of his family ever suffered from the same malady. I was then informed that his mother had been a martyr to it, and that a brother suffered severely, at different periods of the year, from attacks of a similar character. From the peculiar symptoms of my present patient, I was led to suspect that there might be some syphilitic taint in the system, and thereon made inquiry into his early habits of life, but became satisfied that such was not the case, inasmuch as he had never had disease of any kind, which would be likely to cause the circumstances to arise of which he now complained. The symptoms which excited my suspicions were the following:—Great tenderness of the sternum, upon touch; and pains along the course of the tibia (without any enlargement), the pains being more severe at night. I should here state that, previous to his consulting me, he had been under the care of several medical men, and had had consultations with some of the most eminent men in the profession; all of whom agreed that it was rheumatism.

Finding that the means adopted at first gave but temporary relief, and that his system was, in a great measure, giving way to the effects of his disease, I recommended a change of climate, and, at my suggestion, he went to France; but, finding no benefit from the change, he consulted a medical practitioner there, but without any beneficial result. He returned to me, dejected very much, and impressed with the idea that he should ever be a sufferer. Thinking that an alterative plan of treatment might be attended with some benefit to him, I prescribed the following:—

Comp. extract of sarsa., 6 dr.;
Iodine, ½ gr.;
Iodi. of potass, ½ dr.;
Boiling water, 6 oz. A fourth part thrice a-day.

Hydroc. of morphia, 1 gr.;
Sulph. of quinine, 9 grs.;
Blue pill, 10 grs.;
Rhubarb pill, 12 grs. Make nine pills; one thrice a-day.

I ordered, at the same time, light and digestible food, the beneficial results of which treatment, I am happy to say, became very apparent after the first week, and, to use his own expression, he felt the disease, as it were, being torn from him, and expressed his conviction that this plan of treatment would eventually cure him. I followed it up for two months, occasionally leaving out the morphia and the pil. hydr. His system generally improved, his appetite increased, and sleep, with which he was formerly unacquainted, followed (almost as a necessary result). This could not have been effected directly through the medium of the morphia, as I had frequently before given him as much as a grain and a half, without producing much sleep. He is now in robust health,

and has not since experienced any return of his complaint, although it is eight months since he left off taking medicine. He says that he never remembers having been so well as he is at the present time.

PLACENTAR PRESENTATIONS.

To the Editor of THE LANCET.

SIR:—In the excellent practical lecture of Dr. Ingleby on Placentar Presentations, published in the last LANCET, the following sentences occur, on which I beg leave to make a few observations. "But supposing the uterine orifice to have been too rigid to have yielded to the hand, could the plug have been safely employed whilst waiting for the desired relaxation? The risk of blood accumulating internally in large quantities, constitutes the only objection which can attend its employment."

Some time since I was requested by a medical friend to attend for him in a case of labour. The patient resided about four miles from his house, and was stated by her husband to have had a discharge of blood just before he left. I attended immediately, and on reaching the house, found that the female, a robust young woman in labour with her first child, had been perfectly well till two hours before, when, on moving a tub which contained some things she had been washing, she felt what she called a "cramp in her stomach," and a few minutes afterwards some blood passed by the vagina. This gave me the idea of the separation of a part of the placenta, but on making an examination I found the os uteri about the size of a shilling, its edges thin, but hard, like a piece of whipcord, and the placenta lying over its whole circumference. By examining the cervix uteri, also, I had very little doubt that the principal part of it was covered by the attached placenta. While I was examining, another pain and a fresh discharge of blood took place, and being unwilling to incur the whole responsibility of the case, I sent off for my friend. The hæmorrhage continued to increase, and the os uteri being so rigid that turning was out of the question, it struck me that if I could prevent the flow of blood by the vagina (the placenta being attached all round the os uteri, would act as a plug, and prevent any bleeding into the cavity of the uterus), I could safely wait for dilatation of the os uteri. I accordingly filled the whole of the upper part of the vagina with small pieces of soft linen, and then plugged the os externum with a pocket handkerchief. My friend arrived soon after this, and perfectly agreed in the propriety of my proceedings. We both waited to watch the case, and found that though the pains regularly recurred, no hæmorrhage was taking place. Things continued in this state for about six hours, when all at once the handkerchief was forced out, and a great gush of blood followed it. The surgeon passed his hand immediately into the vagina, but on endeavouring to enter the os uteri, the woman complained so loudly that it was determined, as my hand was much smaller than his, that I should attempt immediate delivery.

I found the os uteri about as large as a crown piece, and covered by the placenta. I was passing my hand through it with the purpose of separating more of the placenta, rupturing the membranes, and seizing the feet; when, just as I had reached the edge of the placenta, the membranes gave way, and a powerful contraction came on, which expelled my hand into the vagina, with a large quantity of blood and liquor amnii. I repassed it as soon as the contraction ceased, seized one knee, and, the external parts being relaxed, soon completed the delivery. The placenta immediately followed the birth of the head of the child. The woman suffered for some days from weakness and headach, but was soon quite well, and employed in her household affairs.

The only observation I have to make is, that I should pursue the same practice in any similar case which might occur to me, without the slightest apprehension of internal hæmorrhage. I am, Sir, respectfully yours,

T. S. WELLS.

London, March 23, 1840.

THE VACCINATION BILL.

To the Editor of THE LANCET.

SIR:—The Bill which has just passed the House of Lords, entitled "An Act to extend the Practice of Vaccination," does not, in my humble opinion, advance that much-desired object in the least; it merely gives the Guardians authority "to contract with the Medical Officers of their several Unions respectively for the vaccination of all children who may be brought to them for that purpose;" a power they always possessed, and generally acted upon; nor is it the want of means which causes the poor to neglect this blessing, for they have innumerable public and private facilities for obtaining gratuitous vaccination, and, therefore, if the law is to be made effectual, a compulsory clause must be introduced, inflicting a fine, in default of vaccination before a certain age, say three months.

I would also suggest an alteration in the first clause of the Bill, viz.—instead of the words "all *children* who may be brought to them, &c.," I would say, all *persons*, as it would often be desirable to vaccinate adults, as well as children.

Your able attention to these points, when the Bill comes before the House of Commons, will, I am sure, be duly appreciated by the public and the profession. I am, Sir, your obedient servant,

R. L. Hooper.

London-road, Southwark,
March 25, 1840.

*** We await the appearance of the Bill in the House of Commons.—Ed. L.

THE LANCET.

London, Saturday, March 28, 1840.

The Poor-Law Commissioners have just presented "*A Report to the* Marquis of Normanby *on the Continuance of the Poor-Law Commission, and on some future Amendments of the Laws relating to the Relief of the Poor.*" Medical Relief is among the subjects examined, and at a future time it may be necessary to discuss in this Journal the question of the continuance of the Poor-Law Commission; but we shall, at present, only offer a remark or two upon the plan of Medical Relief proposed in the Report.

The Report is understood to have been written by Mr. G. C. Lewis; and we are glad to be able to state that the section on Medical Relief is carefully drawn up, and evinces more fairness and humanity, than the paragraphs in the early Reports that called down general animadversion. The Commissioners appear to have learnt something from the Report of the Parliamentary Committee; and we may assure them that the Medical Profesion are quite willing to forget their misdeeds, their blind zeal, and their galling tyranny, if there be a prospect of the past evils never being renewed.

The Commissioners begin by observing that, "In the Statute of Elizabeth no allusion to Medical Relief is to be found, and in the subsequent Acts of Parliament, relating to the Poor, the Legislature has been entirely silent on the subject." The reason of this is explained by the History of the Medical Profession. In the time of Elizabeth the Poor could have no Medical Advice, as the number of educated Practitioners was insufficient to supply the demands of the rich and the middle classes. The grocers were the druggists and apothecaries of the age.

Gale stated that in 1566 there were not 34 surgeons of the whole company of Englishmen, and that the greater part of the 34 were in the service of noblemen. In 1618, the number of physicians in the London District was 34; and at that time the Annual Deaths within the Bills of Mortality alone, amounted to 15,000. To 900 sick persons there was *one* Physician; at present there is in the Metropolis at least *one* Practitioner to 54 persons constantly sick. In the time of Elizabeth the great mass of the population trusted to magic, miracles, mountebanks, old women, "carpenters, pewterers, braziers, soap-ball-sellers, pulters, hostellers, and painters." (Caius.) The Acts of Parliament extend the list of irregular practitioners, and denounce them in unmeasured terms. It is quite evident, however, that the individuals denounced were the established practitioners of the age; and that the project for their suppression was the only novelty. Ladies and gentlemen in the country had their recipes, and in fits of benevolence administered herb-teas and bad drugs to the destitute; but the legal provision of Medical Relief for paupers, in the age of Elizabeth, or in any part of the 16th or 17th century, was out of the question.

The terrific plagues of those centuries are recorded in our history, and mark too well the destitution of the Poor, the ignorance of the laws of life, and the want of medical knowledge which prevailed.

The Poor-Law Commissioners have frequently adverted to the fact, that the early Acts of Parliament contained no provision for the Medical Relief of the Poor, or for the preservation of their Health; but that is no reason why the Poor should be neglected now, when medicine has made so much progress, and may render them effectual service.

To the observations on the extent of the Medical Districts we can offer no objections;

they are based on the recommendations of the Medical Witnesses.

In discussing the mode of appointing the Medical Officers, the Commissioners state the reasons for and against the system of Tender; the reasons in favour of the system of Tender are two:—1st. That there is a great difficulty in ascertaining in any other manner what is a proper remuneration for the services to be performed. 2nd. That the engagement promotes private practice, and that, by means of the system of Tender, the public derive some part at least of this collateral advantage. The answer to the first argument is, that there is no difficulty in ascertaining what is a proper remuneration; and to the second, that the collateral advantage is very equivocal, as the quality of the medicines, and the value of the advice, must ultimately be in proportion to the rate of remuneration; so that the Tender system, by reducing the salaries below the sum required for medicines, and the expenses of outlay and travelling, has the inevitable effect of rendering the medical attendance merely nominal, and utterly inefficient. The two arguments would apply with full force to the reappointment of the Poor-Law Commissioners. The Noble Marquis, the SECRETARY OF STATE for the Home Department, would merely have to insert advertisements in the newspapers, to the effect, that he was ready to receive sealed Tenders for the vacant offices, to secure an adequate number of candidates; and thus confer upon the public the "collateral advantages" of the Tender System.

The Commissioners notice the objection that the system of Tender has a tendency to promote the introduction of strangers into Unions. "Nevertheless," they say, "it may "be reasonably questioned whether any such "disturbance will take place, unless upon "the ground that the stranger is more ex-"pert or more attentive than his competi-"tors." Witness SHERIFFS, WARD, and MERRICK, who were introduced by Tender into the Lincoln, Bridgewater, and Hereford Unions; besides a host of others, too numerous to name. The conclusion to which the Commissioners come is sound; it is, that the salaries should be first fixed upon, and that then the Guardians should make their selection with reference only to the qualifications of the Officer, and the locality of his residence.

We are inclined to believe that the Contract System may be abolished, and that the system of making the Medical Officers paid Officers would be advantageous; but, as in the Army and Navy, none but a Medical authority should decide upon the cases of malpraxis, or have the power of dismissing a Medical Officer. On the subject of remuneration the Report embodies the Minute which we have already published. The rate of remuneration was fixed after careful consideration, and is based upon "figures which cannot lie," and do not err, to any significant amount.

The last sentence of the section is the least satisfactory part of the Report. The Commissioners declare their readiness to take the necessary steps to carry out their views. But they add, "*We shall, however, proceed* "*gradually;* for, as your Lordship will per-"ceive from the annexed Reports of our "Assistant Commissioners, to which we "must refer for more full information on the "subject, *there is but little dissatisfaction* "*prevailing in reference to the existing medical* "*arrangements, and certainly none such as* "*calls for any immediate general change!!!*"

This statement is not only not borne out by the detailed Reports of the Assistant Poor-Law Commissioners; but, from all the means of information at our command, we are bound to pronounce the assertion rash and inaccurate. "Little dissatisfaction pre-"vails in reference to the existing medical "arrangements!" The dissatisfaction is universal, or all but universal. The procrastination, and the wilful omission of the opportunity of reforming the system, afforded by the renewal of the contracts in the present month, is a legitimate source of suspicion and alarm. The Commissioners interfered only to do mischief, while their tenure

of office was new, and, on the eve of demanding the renewal of their places, they hold out only promises of a better system!

We recently noticed some of the more salient facts in the Reports of the Hanwell and Wakefield Lunatic Asylums. The Report of the Glasgow Lunatic Asylum, for 1839, contains nothing relative to the subject of treatment by mechanical restraint; and this is the more to be regretted, as the experience of the Glasgow Asylum, and of the two talented physicians—Dr. Balmanno and Dr. Hutcheson—could not fail to possess considerable weight in the discussion. Let us hope that the system of *surveillance*, and its comparative advantages, as well as the possible extent of its application, may engage their serious attention, and obtain a careful notice in the Report of 1840.

The Report is ably drawn up, and contains several interesting facts. The average number of Lunatics in the Asylum was 159. In the year (1839), 80 males and 51 females were admitted; 133 were discharged, of whom 68 were cured; 15 died. Of 100 patients dismissed, 47 were cured; 27 relieved; 7.5 removed; 6.8 harmless and incurable; 11 dead.

One of the patients cured was 55 years of age, and had been under treatment for nearly 10 years. No symptom of his malady having betrayed itself during a twelve months' probation, he was dismissed cured; and having for some time maintained himself and his family by his industry, he was engaged as one of the wardsmen of the establishment, and is now a steady, useful servant, and capable of taking charge of those patients who follow his own trade. Another of the patients that recovered was 57 years of age, and had been insane 16 years. These cases are interesting, as they teach us never to despair of a patient's recovery from this dreadful malady.

No fewer than five cases of cataleptic ecstasy occurred. One case was interesting:—

"No matter how the patient was occupied when the fit came on, he suddenly assumed a statue-like posture, with the trunk slightly bent, one arm elevated, and the fore-finger steadily pointed as if at an object; the eyelids open to their utmost extent; the eyes turned up; the lips separated, and the expression of the whole countenance that of the most profound admiration, wonder, or rapture. In this state the patient would remain a considerable time, totally unconscious of what was passing around."

The diet of Pauper Lunatics in Asylums is, in general, much too low, and not sufficiently varied. The diet of the Glasgow Asylum has been improved. The physicians remark:—

"In most cases, especially in those of the poorer classes, who are often, when admitted, much debilitated and emaciated, we have found benefit from a diet rather generous and restorative; but we are well aware, that even where there is no evident tendency to inordinate vascular action in the system, a degree of feverishness commonly succeeds a full meal."

Lunatics are sometimes voracious; in other cases they refuse food, and attempt to destroy themselves by starvation: they have frequently succeeded. At Glasgow "a feeding apparatus" has been in use for several years, and it appears to be an efficient instrument. In the year six patients obstinately refused food: one was rapidly sinking from disease; the five others were fed against their will: one for two months, another for three months. The patients are extensively employed, and have amusements of various kinds in the Asylum.

The number of cases ascribed to intemperance was unprecedentedly great, namely, 19 males and 5 females. Of those who died, the greater proportion belonged to the labouring classes, and some of them had suffered not only from the privations to which they had unavoidably been subjected, but from neglect and cruelty before admission.

The rate of board for paupers was increased from 6s 6d to 7s on the 21st of January. The receipts of the year were £7171; but of this, £1390 was drawn from the Royal Bank. The disbursements, including £110 due to the Treasurer, amounted

to £7171. A good method has been adopted of exhibiting the relative quantities of provisions purchased for the Asylum, of which the following is an example. It may be advantageously copied by the Infirmaries.

	1837.	1838.	1839.	
Beef....	1,232	1,007	1,054	stone.
Mutton..	510	410	503	"
Bread..	11,165	10,466	11,577	loaves.
	&c.	&c.	&c.	
Daily average No. of Patients..	155	153	159	

The quantities should, however, be expressed in imperial pounds. How many people know the weight of a Glasgow loaf?

The statistical Tables are very judiciously drawn up. We should like to see the Returns in the same form for the last ten years. The numbers discharged cured, uncured, and dead, are given for every five years, from the age of 15 to 80. The Table (p. 27) exhibiting the duration of residence in the Asylum, and also the duration of the disease in the patients who were dismissed in the course of 1839, is admirable. Similar Tables should be published in the Reports of all Asylums; it shows, month by month, up to the 24th month—and year by year, up to the 27th year of the disease—the number dismissed cured, uncured, and dead; distinguishing males and females, maniacs, melancholics, and imbeciles.

We have frequently seen amusing examples of self-deception in the Reports of Charitable Institutions. The following statement, from the Report of the Boston Lunatic Asylum, is quoted by a contemporary, with the grave introductory remark,—

"How gratifying to the friends of humanity are such results as the following:—

"'Number of patients, Jan. 1, 1839, 93; discharged recovered during the year, 74; proportion of recoveries, in recent cases, *exclusive of those who have died*, or have been prematurely removed, 100 per cent.'"

Such a statement stands in little need of confirmation; yet "the Trustees say, in "their Reports, in corroboration of this fact, 'that of the *recent cases* of insanity, *excluding deaths and patients prematurely removed*, 'the whole have recovered!'"

In other words, all recovered that did not die! Oh JONATHAN! JONATHAN! in thy particular line thou art, in truth, insurpassable; it cannot be disputed; but Reports of Lunatics are not necessarily addressed to, or read by, idiots; therefore tell not the men of Boston a second time, that exclusive of those who die, or are not cured, the *re*-recoveries are 100 per cent.

THE Clerk of the Guardians of the Southwell Union has inserted two advertisements in the "Nottingham Mercury," of the 28th Feb., 1840; the one inviting "such medical "gentlemen as are desirous of contracting "for the medical attendance of the six dis-"tricts," to send in "sealed Tenders" to him on or before a given day. The other advertisement, addressed to "all persons," announces the willingness of the Guardians to receive "sealed Tenders for flour (good "seconds), beef (without bone), milk, "shoes, coals, clothing," and a variety of miscellaneous commodities. In the address "to the medical profession," the Guardians "do not pledge themselves to take the "lowest Tender." But this is no exclusive exemption; it is also at the bottom of the second advertisement.

Commentaries on Diseases of the Skin; illustrated by Coloured Plates, &c. Fasciculi I. and II. By ANTONY TODD THOMSON, M. D. London: Taylor and Walton. 1839-40.

A SERIES of folio plates, illustrative of diseases of the skin, is in course of publication by Messrs. Taylor and Walton. The Editor of the work is Dr. A. T. Thomson. Two fasciculi have already appeared. They contain the description of Lepra and Psoriasis. The first fasciculus is ornamented with two coloured plates, which illustrate common and syphilitic lepra. The second is devoted to psoriasis, and contains three plates descriptive of the varieties of that cutaneous eruption. The price of the two fasciculi is eighteen shillings. Dr. Thomson's work is,

therefore, intended for the aristocracy of the profession. At the rate of nine shillings for each disease, the work, when complete, must cost more than fifteen pounds. The plates, however, are very highly finished, and the colouring, though perhaps occasionally exaggerated, is excellent. The representations are drawn from nature, under Dr. Thomson's inspection, and appear to be extremely accurate.

Each fasciculus is accompanied by two sheets and a half of letter-press. This, the descriptive portion of the work, will contain, when finished, a very comprehensive account of diseases of the skin. The peculiarities of each cutaneous eruption are accurately given, and the author enters into a careful examination of the various remedial means which have been proposed, both at home and abroad, for the cure of cutaneous disorders. A judicious selection of cases from the author's public or private practice adds much value to the practical portion of the work.

MEDICAL SOCIETY OF LONDON.

Monday, March 16, 1840.

Dr. Clutterbuck, President.

This being the first general meeting after the Anniversary, at which the election of new officers took place, Dr. Clutterbuck made a brief address to the Fellows on the present condition of the Society. Thanks were voted to the various officers of the preceding session.

Mr. Hutchinson related the following—

Case of fatal collapse after labour, which was attended with a peculiar position of the shoulders of the child, preventing delivery.

He was sent for at mid-day, March 10, to attend a woman in her accouchement; on his arrival the patient was in strong labour, and the membranes just broken. On examination *per vaginam*, he found the os uteri almost fully dilated, the face presenting with the chin at the symphysis pubis, and the forehead towards the sacrum. The patient was of gross habit, and of leucophlegmatic temperament; was forty-five years of age; had been pregnant thirteen times, and the last time, about three years previously, had miscarried at or near the third month. The greater number of her children, however, had been born at the full period. She stated that in her present pregnancy she considered that all could not be right, her sensations being so very different from those she had experienced in former pregnancies; she was foreboding and despondent, and had intimated, to a female friend, her conviction that "she should not survive her present confinement." She told Mr. Hutchinson that she had felt no movement of the child for the previous three days; he endeavoured to dispel these glooming feelings, and encourage hope, by telling her he saw no reason to anticipate worse from this than her former confinement, and by assuring her that she would soon do well. Though the uterine contractions, from the time of his arrival, had continued vigorous and regular, still the head did not make progress, but seemed delayed at the anterior part of the brim of the pelvis, until one o'clock, when it began to descend, and at five minutes past two, two hours after the animal discharge, was propelled into the world. It was of large size, the skin of a livid hue, and the cuticle peeling off, proving that life had been extinct for some days. The head being expelled, Mr. Hutchinson anticipated no obstacle to the expulsion of the body of the child; but every future pain made no impression upon its further progress, although aided by traction, at first gently exercised, and then gradually more and more powerfully exerted. It was now evident that the shoulders had become firmly impacted. On a careful examination he ascertained the relative position and bearing of the mother and fœtus to be as follows:—With the right index-finger the left fœtal shoulder was felt tightly wedged against the brim of the pelvis, immediately above the right foramen ovale; and the right shoulder, with the left index-finger, bearing against the brim, midway between the left sacro-iliac synchondrosis and symphysis pubis, but having more space in all directions than the opposite shoulder, especially toward the sacrum, rendering manifest that the left shoulder had become impacted forward in the pelvis at, or near, the foramen ovale; and that the trunk of the child altogether was situated considerably forward in the pelvis, and projected in relation to the superior pelvic diameter, at an obliquity bearing from left to right of the mother; her pulse was now 120, soft and feeble; mind despondent as to the result; the abdomen tender on pressure; her manner impatient and intolerant of pain.

Under these circumstances, and the continuing impacted position of the child, notwithstanding his repeated efforts to remedy this, by trying to adjust the long axis of the shoulders, more exactly to that of the pelvis, and feeling apprehensive of the result, he called in his friend, Mr. Margetson, who arrived at a quarter to three o'clock. After a deliberate examination, and waiting a short time, seeing that the patient began to exhibit symptoms of distress, and that the efforts at expulsion, notwithstanding the energy of the pain, were altogether fruitless, they

agreed upon extracting the child without delay. To effect this, after again trying traction without any success, the chest of the child was first perforated, and then a blunt hook carefully passed into, and fixed in, the right axilla, and the arm drawn down; by this more space was obtained; pressure was then made, in the interval of contraction, against the impacted shoulder, the hook was passed into the left axilla, and the arm brought down as the other had been. The shoulders being now liberated, the child was expelled without further difficulty, about four o'clock. Immediately after the birth of the fœtus, a little watery fluid, tinged with blood, was passed; and on introducing the finger within the vagina, the placenta was felt detached, and removed forthwith; it was soft, livid, and flabby, but entire. The patient's abdomen was then bound tightly up with a napkin. At this period she seemed a good deal distressed, complained of abdominal tenderness, was feverish, fretful, reluctant at being disturbed, or even spoken to; pulse small, quick, and fluttering. In a few minutes there was an oozing of dark blood from the vagina, which soon increased to gushes, the blood being propelled with feebleness. Brandy and water, opium and ether, were administered, but received with considerable reluctance, the patient evincing an almost insuperable disinclination at being disturbed. Pressure, friction, and cold by shocks were employed over the abdomen, and cold to the external parts of generation, in order to excite contraction. The hæmorrhage still continuing, the hand was introduced into the uterus, which was found flabby, uncontracted, and its walls collapsing. The closed hand was applied firmly against the part where the placenta had been attached, aided by firm counter-pressure from without; still the bleeding continued, and the woman was evidently sinking; the pulse had become scarcely perceptible; the countenance pale and anxious in its expression, succeeded by sighing, muttering, glaziness of the eye, and dilatation of the pupils, frothing at the mouth, and syncope, rapidly terminating in death, at half-past four o'clock, and within half an hour after birth, without any attempt at uterine contraction. The quantity of blood lost did not exceed a pint and a half. No post-mortem examination was allowed.

A discussion of some length took place, in which various opinions as to the cause of death were offered. Disease of the heart was generally supposed to have been the most likely cause. Other Fellows considered that the uterus was probably in a softened state, or was otherwise diseased.

PATHOLOGICAL SOCIETY OF LONDON.

Tuesday, March 17, 1840.

Dr. CLENDINNING, President.

THE first meeting of the Society was held this evening, a great number of Visiters and Fellows attended.

CONTUSED ARTERY.

Mr. ARNOTT showed a preparation and drawing exhibiting a peculiar condition of the humeral artery, consequent upon injury. A man was admitted late at night into the Middlesex Hospital, with five or six of his ribs broken, and a compound fracture of the left ulna, in consequence of the passage of a cart-wheel over him. The house-surgeon did not deem the latter injury to be a serious one, and subsequently alleged, that the pulse, at the wrist, was then perceptible. The following day (the 2nd of October), Mr. Arnott saw the patient. The wound of the fore-arm was not considerable; the bone was not comminuted; the temperature of the hand was natural, but no pulsation could be detected in either the radial or the ulnar artery. The limb was attempted to be saved. The following day the temperature remained unaltered. On the fourth the limb exhibited signs of mortification, being livid, mottled, and insensible: it was, accordingly, taken off forthwith.

On examining the humeral artery, this was found about three inches below the seat of amputation, to be enlarged to a considerable size, and to be gorged with blood, which acted as an obstructing clot. The cellular coat was entire, while the inner and middle coats divided circularly, as if by a ligature, were, beyond this, separated from the cellular, and the two former still preserving their adhesion to each other, and their cylindrical form entire, were turned down and fairly inverted into the canal of the vessel further on; thus forming an additional cause of obstruction. Mr. Arnott had thought the case to be *unique*, but had recently learnt that one somewhat similar had occurred in the Birmingham Hospital, in a patient of Mr. Hodgson, who met with a compound fracture of the leg, and died some weeks after of phlebitis. Soon after the accident, it was observed that there was no pulse at the left wrist, and, on examining the axiliary artery after death, there was found in it an obstruction depending on the same causes as were observed in Mr. Arnott's case; the cellular coat being whole, the middle and inner coats divided, and these two adherent and inverted as a cylinder into the vessel beyond.

Mr. B. PHILLIPS believed that two cases of a similar kind were recorded in the Edinburgh Medical and Chirurgical Trans-

actions, by Mr. Turner. In one case violence had been done to the arm, from which mortification ensued. The same condition of the artery as in Mr. Arnott's case, he (Mr. Phillips) believed was present. The other case was similar.

Mr. Arnott was acquainted with Mr. Turner's cases; in them the inner coats were torn irregularly, not simply, divided, and inverted, as in his own case. An example of spontaneous gangrene, i. e., unconnected with external violence, had occurred in town, in which the same lacerated condition of the inner coats was observed, as in Mr. Turner's cases.

PECULIAR INTESTINAL CONCRETION.

Dr. Bright exhibited an intestinal concretion or calculus, chiefly remarkable from its being composed simply of phosphate of lime, surrounding a nucleus of fæces. The patient from whom it was taken was under the care of Mr. Stone, and was six years of age. The symptoms presented were those usually observed in fæcal abscess; there was a swelling on the right side of the abdomen, attended by gradual emaciation, and there was a discharge of pus and mucus, occasionally, from the bowels. In addition, however, to these symptoms, there was a discharge of puriform fluid from the bladder. The child died in twelve weeks after the first attendance of Mr. Stone. On examination, great suppuration was found at the caput coli, in which were two calculi; the one exhibited, which was about the size of a pigeon's egg, and another about half the size. From the composition of the calculi, it was at first suspected that they were formed in the kidney, and had escaped by ulceration through the right ureter; careful examination, however, proved this opinion to be erroneous. The calculi were formed of successive layers of phosphate of lime; the nucleus was a small portion of fæces. In another instance, under the care of the same practitioner, a number of calculi, of the same composition, had passed away from the rectum with the fæces.

Mr. Alcock remarked, that the phosphate of lime calculus was usually the result of chronic irritation of the mucous membrane of the bladder. Might not the intestinal irritation account for the formation of the bodies in the case under discussion?

Mr. Erasmus Wilson had in his possession a portion of a colon in which there were a number of pouches containing calculi, probably composed of the phosphate of lime.

DISORGANISATION OF THE HEART FROM ACUTE INFLAMMATION CONNECTED WITH RHEUMATISM.

Dr. Watson exhibited some specimens of morbid anatomy, which were, as far as his knowledge went, perfectly unique in some particulars. They were cases of a peculiar kind of disorganisation of the heart, resulting from acute inflammation connected with rheumatism. It was known well, that in articular rheumatism it was very common for some portions of the membranes of the heart to become inflamed; indeed, it had been calculated, that of cases of rheumatism of the joints occurring in London, at least one-third were complicated with some kind of cardiac inflammation, of which endocarditis and pericarditis were the most common. In the two cases from which the preparations exhibited were taken, the inflammation had fallen upon the lining membrane of the heart, producing a peculiar disorganisation of the valves. In each instance there was a *ragged* perforation or destructive ulceration of one or more of the aortic valves. In both cases the muscular structure of the heart was diseased; in one instance there was ulceration completely through the septum, and in the other an abscess as large as a hazel-nut was found in the muscular structure of the septum.

The history of both cases was very similar. They occurred in young women of twenty-one and twenty-two years of age. Both were sufferers from a first attack of acute articular rheumatism; both had suffered from acute pleurisy, but had been free from pericarditis; one was ill three weeks, the other a month; both cases occurred in the same month; the sounds of the heart in both cases were altered, and there were palpitation and pain in that region.

The cases were peculiar from the rapid disorganisation which had taken place from acute inflammation, from their connection with acute rheumatism, from the muscular structure being involved, perforation of the septum, and abscess of the substance of the heart.

Dr. Hodgkin said, that there were three or four preparations in a collection with which he had at one time something to do, similar to those brought forward by Dr. Watson. In one case there was perforation of the semilunar valves of the aorta, but he did not know whether the patient had suffered from acute rheumatism.

In one case of acute inflammation of the lining membrane of the heart, connected with rheumatism, a deposit was found on the edges of the valves without perforation. In another instance, which he had watched carefully during the last stage of the disease, and in which the physical signs resembled those which are present in retroversion of the aortic valves—the pulse remaining perfectly regular—a large aperture was found in one of the semilunar valves. There was also a preparation of a perforation of the mitral valve—he did not know its history. He had never seen pus in the muscular structure of the heart. In

the few cases of acute carditis which had occurred, no suppuration took place before death, the patients perishing from other causes. He believed the deposits found on the edges of lacerated valves, or diseased portions of the lining membrane, were deposited from the blood, and were not exudations from the diseased structure.

Mr. MEADE had examined a patient who had died with all the symptoms of acute pericarditis, but he did not know whether it was connected with rheumatism, in which the only lesion found was a large ulcerated hole through one of the aortic valves.

DISEASE OF THE PONS VAROLII.

The case from which this preparation was taken was under the care of Mr. Henry Obré, Assistant-Surgeon to the St. Mary-le-bone Infirmary. The patient was a boy, nine years of age. About a week previous to his coming under the care of Mr. Obré, he had received a blow from a stone, on the left malar bone. It produced no other inconvenience than ecchymosis. His health had always been good. About a week after the receipt of the injury, he showed an indisposition to play, and was attacked with diarrhœa, vomiting, and gradual loss of power in the left side. At this period he came under the care of Mr. Obré, when the following symptoms presented themselves:—As he lay, his head was thrown back, he complained of pain in the posterior part of it; there was violent strabismus of both eyes, which were drawn to the left angle; the pupil was obedient to light; the sight and motion of the lids natural; there was hemiplegia of the left side. He was sensible of the desire to pass his evacuations; the urine passed seldom, and in small quantities. A catheter was attempted to be passed into the bladder, but when it had been introduced about as far as the bulb of the urethra, its further passage was prevented by complete and violent priapism. The limbs, at the same time, were drawn up, and the whole body suffered from intense spasm. These phenomena were repeated at each attempt at introducing the catheter, but the moment the instrument was withdrawn, he returned to his former state of quiet. When the paralysed extremities were pinched pain was felt, but he had no power of motion, except when the urethra was irritated; the motion was then involuntary. He had perfect sensibility and power of speech. He continued in this state for nine days, at the expiration of which he died. On examining the body the following day, the brain was the only organ which was found diseased; the dura mater was more than naturally vascular and adherent to the bone; the brain was firm, and gorged with blood; on the under and right side of the pons Varolii, close to the pyramidal body, was a dark, ragged opening, which communicated with a cavity in the pons, the size of a pigeon's egg, which presented the same appearance; there was also a smaller opening passing into the cavity from the left side, it contained no purulent secretion or fluid of any kind; the cavity occupied the right side chiefly; the pons was enlarged to double its natural size and weight.

Dr. HODGKIN had seen two cases of disease of the pons Varolii; in one instance the disorganisation was the result of apoplectic effusion, in the other instance he did not know the cause of the disease. He thought, that, although, in Mr. Obré's case, no fluid was found in the abscess, some had, probably, been there, and had escaped when the parts were removed.

Dr. GEORGE BURROWS exhibited a fine specimen of gangrene of the lung.

A variety of other preparations were on the table, the account of which, owing to the lateness of the hour, was postponed until the next meeting.

The future meetings will be on the first and third Tuesdays, during the months of April, May, and June.

STATISTICS OF INSANITY IN FRANCE.

DURING the last eight years 1045 insane patients were received into the Lyons' Hospital. Of these, 503 were males, and 542 females. The various causes of insanity, amongst the patients, were as follows:—

FEMALES, 542.

Physical.—Hereditary disposition, 56; drunkenness and debauchery, 43; puerperal accidents, 45; disordered menstruation, 25; venereal disease, or mercury, 5; retrocession of cutaneous affections, 23; onanism, 17; injuries of the head, 3; solitary confinement (*isolation*), 6.

Moral.—Domestic afflictions, 65; poverty, 47; loss of fortune, 31; love and jealousy, 33; fright, 8; religion, 29; politics, 11.

MALES, 503.

Physical.—Hereditary disposition, 62; drunkenness, 54; apoplexy, 25; onanism, 21; syphilis, or mercury, 5; injuries of the head, 6; solitary confinement, 9; retrocession of cutaneous diseases, 14.

Moral.—Domestic trouble, 65; poverty, 56; loss of fortune, 36; politics, 16; jealousy, 14; religion, 12; fright, 6; excessive study, 8.

Of the 542 females, 114 were discharged perfectly cured; 91 were withdrawn by their friends, improved; 162 died; 175 remained in hospital on the 1st of June, 1839.

Of the 503 males, 149 were cured; 61 withdrawn; 158 died; and 135 remained in hospital. Hence the proportion of cures

for the females, was 1 in 5; and for the males, something more than 1 in 5.—*Gaz. Med.*, No. 11, 1840.

ARTIFICIAL PREMATURE DELIVERY OF A DWARF.

M. Dubois recently communicated the following interesting case to the Royal Academy of Medicine :—

The subject of this case was a girl 23 years of age, and of stature 3 feet 2 inches, scarcely that of a child five years of age. Her mother was of ordinary size, but her father was only 3 feet 6 inches in height. Three of their children were also dwarfs. Two years ago she was seen, for the first time, by M. Dubois. She was then in labour, but the child's head could not enter the inlet of the pelvis. M. Dubois, therefore, opened the head, and the latter descended to the vulva. But here a new difficulty presented itself; the vulva was extremely narrow, and the fœtus could not have passed, had not the walls of the vagina given way of their own accord, and the delivery was completed. The child, without the brain, weighed 5½ pounds.

Last year the girl again became pregnant, and immediately announced the fact, as she had been desired, to M. Dubois. In February she had arrived at the eighth month of pregnancy. M. Dubois now decided on effecting a premature delivery. The patient was first placed in a warm bath; a speculum was introduced, and a piece of conical sponge passed into the neck of the uterus; at the same time six grains of secale cornutum were administered. After a lapse of four hours the patient experienced strong pains, and labour was fully established. At nine o'clock the membranes were ruptured, and it was discovered that the breech presented; some slight difficulty was found in withdrawing the head, but this was soon overcome, and the delivery happily completed. The child was small, but living; the bi-parietal diameter, 3 inches; the occipito-frontal 3½ inches; the length of the child 15 inches; it weighed only 3 pounds, 12 ounces. The mother gave it milk for the first few days, and within a short time both parent and child were perfectly well.—*Gaz. Med.*, No. 11, 1840.

CÆSAREAN OPERATIONS.

We record the following short notes of Cæsarean operations which have been recently performed :—

1. Cæsarean operation, followed by success for both mother and child; by Dr. E. Michaëlis, of Kiel.

2. Cæsarean operation, followed by the death of the mother; by Mr. Ward.

3. Extraction of a living child; death of the mother on the third day; by Dr. Flamm.

4. Operation performed for the second time, with success, on the same female; by Dr. Fox.

5. Fourth successful operation on the woman, named Adametz; by Dr. Michaëlis.

6. An operation, equally successful, on a rachitic woman, 37 years of age. Dr. Michaëlis has been extremely fortunate in his operations. He has performed it four times; and in three succeeded in saving the lives of mother and child. Within the last eight years ten Cæsarean operations have been performed in Holstein, and only three of the ten have terminated unfavourably.

7. Successful operation; by Dr. Bauer.

8. Operation successful for the mother, fatal to the child; by Dr. Herzbruch.

9. Successful case, by Dr. Wright.

10. Two successful cases; by Drs. Schenck and Petrenz. — *L'Experience*, March 5, 1840.

BLENHEIM-STREET FREE DISPENSARY AND INFIRMARY.

LEUCORRHŒA FROM PAPULAR INFLAMMATION, WITH ULCERATION OF THE CERVIX UTERI.

Mrs. M., aged 26, in the seventh month of pregnancy, was admitted under the care of Dr. Robert Dundas Thomson, in consequence of having long been the subject of a copious vaginal discharge, of a whitish colour, becoming clotted or lumpy occasionally. She stated that the discharge had existed for upwards of three years, and that slight relief had been occasionally obtained by the employment of astringent injections, under the direction of different practitioners, to whom she had applied. She had never been made the subject of physical examination. She complained of pains in the loins, and in the lower part of the back and abdomen; sense of weight in the same situation, and frequent micturition: the lower part of the abdomen felt tumid and tense, and the fundus of the enlarged uterus could readily be recognised in the umbilical region; the cervix uteri was found, on examination by the finger, to be enlarged and retracted, its orifice dilated, and preternaturally sensitive. By *ballottement* a solid body could be recognised floating in a fluid; the mammæ were enlarged, and the mammary veins very distinct. By means of the speculum the whole of the surface of the enlarged cervix was found to be studded with red points, the intermediate spaces being superficially ulcerated. Litmus paper applied to the diseased surface, was immediately reddened; but no effect was produced upon it by the secretion covering the membrane of the vagina. In the course of three weeks, by the local application of nitrate of silver to the cervix,

injections of carbonate of soda, with the administration of anodynes and tonics, the inflamed and ulcerated surface healed, and the discharge entirely ceased, which had never been the case since its first appearance. The carbonate of soda injection, which has been employed by Dr. Thomson, in consequence of his discovery that in inflamed mucous surfaces the secretion is acid, is extensively prescribed at this institution. There are, at present, two cases under treatment, in which the compound alum lotion and the acetate-of-lead-wash appeared to increase the irritation. By the substitution of the carbonate-of-soda-lotion, great relief has been experienced, and all the inflammatory symptoms are rapidly disappearing. Its application must be frequent, as it would appear to act as a palliative rather than as a radical cure, by neutralising the constantly-secreted acid, and thus removing a fruitful source of excitement to the mucous surface. The radical alteration in the secretion is effected by the destruction of the mucous membrane, by means of caustics, such as nitrate of silver, chloride of gold, or chloride of zinc.

ST. THOMAS'S HOSPITAL.

IODIDE OF POTASSIUM IN SECONDARY SYPHILIS.

Richard E., admitted Jan. 28, 1840, under the care of Dr. Robert Williams. He is a butcher, 27 years of age, and states that he had a syphilitic sore on the glans penis, four years ago, for which he took mercury, till salivation was induced. About four months before admission, not having contracted any fresh disease, or suffered from sore throat, he began to be annoyed by pains commencing in the ancles, afterwards attacking the shoulders, tibiæ, and cranium. The different joints became stiff and swollen, and the spines of both the tibiæ were irregularly nodulated; mercury was administered, and, about fourteen days before admission, salivation came on, which continued a week. This, however, was not followed by any alleviation of the pain; indeed it was increased, and his general health was also considerably affected. On admission, he was very pale; pulse 100, feeble; was unable to move any joint without much suffering. There was evidently a good deal of thickening of the periosteum covering the spines of the tibiæ, or deposit between that membrane and the bone. The pains were much aggravated at night; so much so that he stated he had had no rest for several nights. He was ordered eight grains of the iodide of potassium three times a-day, in camphor mixture.

Feb. 1. Much freer from pain. Sleeps better than he has done for weeks.

17. Has gradually improved in every respect; but is very pale and weak. Ordered four ounces of wine a-day, and to continue the iodide.

24. Much better: appetite good; sleeps well. Ordered to take also a pint of porter daily.

He was discharged well on the 17th of March, so much improved in appearance, that an intimate friend looked for him in the ward, and did not know him for some time. He was perfectly free from pain, and the irregularities on the tibiæ had disappeared.

Richard S., labourer, aged 29, admitted Feb. 25, 1840, under the care of Dr. Robert Williams. About two years ago, says he had a chancre on the prepuce, which healed in about six weeks under the use of mercury carried to salivation. Suffered no inconvenience from secondary symptoms till last summer, when a good deal of pain came on in the arms and elbows, and the joints both of the superior and inferior extremities were stiff for some months. Six weeks before admission some small vesicles appeared on the right arm, which broke and formed scabs, which separated, leaving an ulcerated surface. This, on admission, was about the size of the palm of the hand. Presented an excavated appearance, covered with an unhealthy discharge. He stated that the ulceration was rapidly extending. His general health did not appear much affected. He was ordered eight grains of the iodide of potassium three times a-day, in camphor mixture; and the unguentum hydrargyri nitric. oxydi was applied to the ulcerated surface on the arm.

March 2. The pains, which were very severe on admission, almost gone; joints less stiff; sore on the arm assuming a healthy granulating appearance; a white pellicle around the edges, indicating commencing cicatrization.

10. No pain: sleeps well; sore nearly healed. He gradually improved, and was discharged well on the 17th.

William H., country labourer, aged 30, admitted Feb. 25, 1840, under the care of Dr. Robert Williams. Had a syphilitic primary sore in April last. He took mercury; salivation continued for a fortnight, and the sore had healed in June. In about two months swelling and pain began in both knees and the spines of both tibiæ, and he has since suffered from violent pains in all the joints. Since Christmas, the knees have been so stiff that he was unable to bend them, and the pains in the tibiæ have been much more severe, especially at night. Their surface has a tuberculated feeling. He has had no sore throat or syphilitic eruption, and his general health appears pretty good. He was ordered eight grains of the iodide of potassium three times a-day, in camphor mixture.

March 2. Very much less pain and stiffness; sleeps better.

17. Nearly well. Left the house of his own accord to go to work again.

In none of these cases did the slightest unpleasant symptoms follow the exhibition of the remedy, and that the amendment was solely attributable to it may be inferred from the want of success in previous treatment, and the fact that no other medicine was administered. These cases are quite sufficient to prove that mercury is no specific for syphilis, as its influence on the constitution had been induced in each instance, and yet a very severe train of secondary symptoms set in, which, in the first case, were aggravated by the continued employment of mercury. Indeed, no one who had seen one of the patients could doubt, that had the use of mercury been persevered with in his case, he could have lived but a very few days.

The iodide of potassium has enjoyed considerable reputation in the treatment of syphilis, since its power over this disease was first pointed out by Dr. Williams, in his paper read before the College of Physicians. But many have been disappointed in their expectations of its good effects, on making trial of it, and simply from their employing it in insufficient doses. It is not uncommon to see one or two grains given three or four times a-day. This is, in most cases, next to useless; but if it be given in the dose of eight grains, three times a-day, as in the above cases, its power over the secondary constitutional symptoms of syphilis is, probably, as great as that of quinine over intermittent fever, and we have never known the slightest inconvenience to result from such doses, continued for some weeks.

UNIVERSITY COLLEGE HOSPITAL.

STRANGULATED FEMORAL HERNIA. — OPERATION.—ARTIFICIAL ANUS.

M. R., aged 50, was admitted January 29, under the care of Mr. Liston. She has been subject to femoral hernia on the right side for eight years. At first the hernia was always returned, but for the last year, she thinks, it has been constantly down; she has worn a truss for some time. At 10, P. M., yesterday, the hernia came down; she had been making great muscular efforts previously. Several practitioners tried to reduce the bowel, but without effect. She was admitted into the hospital at 2, P. M. There was a tumour, about the size of a hen's egg, in the right groin; painful on pressure; not very tense. She had pain in her belly, and on pressure. She had vomited stercoraceous matter, and had had no passage through the bowel for some time. Pulse 90, compressible; no great thirst. Mr. Liston made some attempts to reduce the tumour, by the taxis, but without effect. The woman was taken into the theatre. Mr. Liston made an incision, in the form of a T, over the tumour, with a scalpel and forceps; the sac was soon opened. The protruded parts consisted of a small knuckle of intestine of rather a dark colour, and some omentum. The stricture was easily divided; but there was some difficulty in reducing the hernia. The omentum appeared adherent to the sac, and the gut was constantly being protruded by the efforts of the patient. A pad and spica bandage were applied, and the patient put to-bed. No aperient medicine was administered. Shortly after the operation she fell into a tranquil sleep.

January 28. She slept the greater part of the night, but this morning she does not seem very well; her bowels have not been opened. Pulse 120; full, but compressible; face much flushed. She suffers a good deal of pain, but of a spasmodic nature. She has tenderness on pressure, but not very great; the abdomen is not tense, or tympanitic; the tongue is not white or much coated; she does not suffer from a great deal of thirst, nor is the countenance so anxious as in severe peritonitis. She was bled to six ounces; when this small quantity of blood was abstracted she felt very faint. The compress and bandages were slackened; she has acute pain on pressure, near the wound; an ounce of castor oil directly; an enema in four hours; thirty leeches to the abdomen; blood, taken away by venesection, not buffed or cupped.

29. She slept during the night; the pain in the upper and left side of the belly has removed to the lower part of the abdomen. It does not come on in such paroxysms, nor is it so severe. Pulse 134; wiry, but compressible; tongue moist at the edges, but somewhat dry in the centre, and slightly brown; the abdomen is not tense or hot; the bowels have not been opened; the countenance is anxious. A tube was introduced two feet into the rectum, and an enema administered, but only one small scybala came away; she is somewhat thirsty. To have ten grains of compound extract of colocynth, in two pills, every second hour.

30. Pulse 110, compressible; tongue moist, but somewhat coated; not so much pain or tenderness on pressure of the abdomen; no great heat of surface, or thirst; bowels have not been open; she rejected all the medicine she took last night. To have half a drop of croton oil every hour. She has not vomited to-day; pulse fuller; she

has had enemata; the bowels, however, have not yet been opened.

31. Pulse 130, compressible. She complains of a good deal of pain in the bowels; tongue still moist, but white; the abdomen is not tense or hot, but it is painful on pressure, though not at all distended; there is a brownish thin discharge from the wound, which has a somewhat fæcal smell; probably an artificial anus is beginning to form. Omit the croton oil. Her mouth is sore from the calomel she has taken; she has not vomited.

Feb. 1. There is still a brown discharge from the wound; she does not vomit; her countenance is not so anxious as it was; she is not very thirsty, nor is her abdomen more painful; no vomiting.

2. Mr. Liston examined the wound to-day; he thought he perceived a tense and fluctuating substance in the wound, which he concluded was bowel again protruded; he scratched it with the scissors, but it did not bleed; he then made a small opening into it, and a large quantity of thin fæcal matter was discharged. She was much relieved. Her appetite improved, and she did not vomit during the rest of the day. The discharge continued very profuse.

3. Her cough is very troublesome; she has pain, on pressure, over the abdomen; she is cool; pulse 80, regular, and compressible; no thirst.

6. She is going on well. Does not lose strength; her cough is very troublesome, and she takes a mixture of senega, squills, and syrup of poppies. Her mouth, which was much salivated, is better. She is to have two eggs daily, one mutton-chop. Half-a-pint of beef-tea to be thrown up the rectum daily.

10. She has been going on much the same, though gradually losing strength. She objects to have the enemata so often as she should. Her appetite still continues pretty good, but her strength is failing. The discharge from the artificial opening is not quite so profuse as it was. Her cough is very troublesome, and gives her a good deal of pain; pulse weak and frequent. Does not sleep much. Six ounces of brandy daily.

12. In much the same state; there is not so much discharge from the fistula, but her strength appears to be fast failing her; her appetite is not so good.

14. Much the same, but weaker; she has refused to have the enemata; appetite still failing; her cough has been also very troublesome. Died in the evening.

After-death Appearances.

Body examined thirty six hours after death.

Chest.—Lungs perfectly healthy, with the exception of evidence of very slight relaxation of the mucous membrane of the bronchi. On the left side, near the apex, were cicatrices, probably from softened tubercles.

Abdomen.—Viscera generally healthy; the lower portion of the ileum, about a yard from its termination in the cæcum, was the strangulated part; the two portions of the intestine, upper and lower, were lying side by side, as they passed into the crural ring; previous to entering the ring there was, as yet, no adhesion between their contiguous peritonæal surfaces. The contrast in size and colour was very great, the upper position being of a deep purple, and considerably congested, the lower very pale and about the size of a tobacco-pipe; the small intestine was empty, but the large one contained some fæces; the upper portion of the ileum was rather larger than natural; some omentum, lying above the intestine, passed into the crural ring, together with the gut, and was, around the internal opening, very adherent; some folds of intestine lying near the ring were also adherent; the two pieces of intestine were also somewhat adherent.

BRONCHOCELE.—DIVISION OF THE STERNO-MASTOID MUSCLE.

G. B., aged 43, was admitted January 23, under the care of Mr. Liston. He has been affected with swelling of the left lobe of the thyroid body for six years, gradually increasing. On admission into the hospital, he had a large tumour on the left side of the neck, firm and elastic, not movable, apparently connected with the trachea. It extends under the sterno-mastoid to its external margin, and has pushed out the muscle, which is stretched over it very tightly. The trachea is pushed over very much to the right, very nearly an inch from the median line. He breathes with difficulty, and at night his respiration is very difficult.

On January 28, Mr. Liston determined to divide the clavicular and sternal attachments of the sterno-mastoid, which was done by dividing the integument over it to the extent of three inches. The breathing was somewhat relieved, when the muscle which pushed over the larynx and trachea was divided. A vein was cut through in the course of the operation, which bled so profusely as to require ligatures, which were tied at both ends, and cut off close.

29. Relief from the operation; some erythema about the wound, which is to have water-dressing over it, to be changed frequently.

Feb. 1. Water-dressing to the wound, which is discharging freely; the erythema quite gone.

12. The wound is healed, the trachea is now quite straight, and more towards the middle line; his breath is somewhat relieved. He wishes to go into the country, where he will take iodine internally, and apply it to the tumour.

DR. CARSON'S MODE OF SLAUGHTERING.

To the Editor of THE LANCET.

SIR:—Your correspondent, Mr. Steele, in your last Number, refers to an article which appeared in "The Times" of April, which was filled with the most scurrilous falsehoods on the subject of Dr. Carson's patent. The history of this article is rather curious. The substance of the communication appeared previously in the "Liverpool Mail;" but as that paper is of so scandalous a description, that any abusive matter it may contain is never considered worthy of notice by the people of Liverpool, the author, who is supposed to be some illiberal adversary (Dr. Carson being a thorough liberal, and, what is remarkable, at the head of his ward in the most fashionable part of the city,) contrived to have it inserted in the London "Times," and then had it republished in the "Mail" as an article originally supplied by the "Times."

The ignorance displayed in the article may, perhaps, in a scientific point of view, be considered an excuse for its libellous nature, but not in its influence with the public, which would have certainly justified the distinguished inventor of the plan to have recourse to legal proceedings. Your obedient servant,

T.

9th March, 1840.

FEES AT INQUESTS.

To the Editor of THE LANCET.

SIR:—As a doubt on the subject exists in the mind of the Coroner for this district, I should feel obliged by your informing me whether the surgeon of a Union workhouse is entitled to his fees for giving evidence touching the death of a pauper in such workhouse? I am, Sir, yours,

Richmond, March 16, 1840. M. O.

[The above letter appeared in our Number last week, but the whole of the latter portion of the reply having been accidentally omitted, it is now reprinted, in order to supply the part then omitted.]

*** He is entitled to claim and receive the fee, provided he was *summoned* according to the provisions of the Medical Witnesses Act. If otherwise summoned, he is not entitled to the fee.—ED. L.

Dr. MANTELL, of Crescent Lodge, Clapham Common, has been elected by the Committee of the Athenæum a Member of that body, as "a man of distinguished eminence in science." A similar mark of respect has been paid to Mr. Owen.

BOOKS RECEIVED.

Practical Observations on Distortions of the Spine, Chest, and Limbs, &c., by William Tilleard Ward. Renshaw, London, 1840, 8vo, pp. 202.

Dictionary of Geology and Mineralogy, &c., by William Humble, M.D. Washbourne, London, 1840, 8vo, pp. 280.

Principles of Botany, &c., by Hughes Willshire, M.D. Highley, London, 1840, 8vo, pp. 232.

Transactions of the Medical and Physical Society of Bombay, vol. ii. Richardson, London, 1839, 8vo, pp. 270.

TO CORRESPONDENTS.

Mr. Carpenter.—We do not believe that the writer in the "Edinburgh Medical Journal" seriously intended to accuse Mr. CARPENTER of "Heresy." At any rate, with the testimony of a theologian so eminent as Dr. PYE SMITH in his favour, Mr. C.'s orthodoxy is not likely to be questioned by unprejudiced Christians. Physiologists should bear in mind the advice of Lord BACON, and never mix up theology with scientific investigations. Mr. CARPENTER must be well aware that we have no data which can explain the agency of the Creator of the Universe.

The papers of *Mr. Romer* and *Mr. Millard* next week.

Medicus expresses a wish that the Directors of the Denham Lunatic Asylum would lay before the public a statistical history of the patients who have been received into that establishment since its foundation.

Received the communications of *Mr. Vallack, Dr. G. P. May*, and *Dr. M'Cabe.*

Mr. J. H. Pode.—The question is one of law, and involves the interpretation of two statutary clauses on which we decline here to decide; but the custom has been, accordant with the decision of the judge, described by our correspondent. It will be decided definitely, ere long.

Mr. L. Heynes.—Such placards are too common for any one of them to require special notice.

The statements of *Home* cannot be inserted on anonymous authority.

The suggestion of *Mr. M.* respecting the returns shall be kept in mind. The history of the cases of dementia we shall be glad to receive.

Infelix.—There are hundreds. We decline to name one among so many.

Mr. Richardson (Bath Hosp.) will find a reply in the negative, in Section V. of the Medical Witnesses Act,—LANCET, vol. ii. 1835—36, page 717.

A Constant Reader (Wednesday).—We will look for the remark of Mr. C.